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## A COMPARISON OF TEACHERS' PERCEPTIONS OF THE LEADERSHIP STYLES OF MIDDLE SCHOOL PRINCIPALS AND INSTRUCTIONAL LEADERS AND THEIR RELATIONSHIP TO TEACHERS' PERCEPTIONS OF SCHOOL CLIMATE

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MIDDLE SCHOOL PRINCIPALS AND INSTRUCTIONAL LEADERS AND THEIR  
RELATIONSHIP TO TEACHERS' PERCEPTIONS OF SCHOOL CLIMATE

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A Dissertation

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Requirements for the Degree of

Doctor of Education in Instructional Leadership

in the

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at

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2008

A COMPARISON OF TEACHERS' PERCEPTIONS OF THE LEADERSHIP STYLES OF  
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Jessica Lynn Devine, Ed.D.

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The purpose of the research study was to (a) determine how teachers' perceptions of the leadership styles (transformational, transactional, and passive) of middle school principals and instructional leaders differed; (b) identify the extent to which teachers' perceptions of the leadership styles (transformational, transactional, and passive) of school leaders (principal and instructional leader) predicted the teacher and principal behavior variables of school climate; and (c) determine the effects of the type of agreement (high-high, high-low, low-high, and low-low) between the school leaders' (principal and instructional leader) self-perceptions and teachers' perceptions of the school leaders' transformational leadership style on the teacher and principal openness behavior variables of school climate. Causal comparative and correlational designs were utilized for the study. The sample population consisted of 7 principals, 7 instructional leaders, and 114 teachers from 7 middle schools in Connecticut. Teachers completed the *Multifactor Leadership Questionnaire-5X* to assess their perceptions of the leadership styles (transformational, transactional, and passive) of principals and instructional leaders, while principals and instructional leaders completed the self-rater form of the *Multifactor Leadership Questionnaire-5X*. In addition, teachers

completed the *Organizational Climate Description Questionnaire-RM* to assess teacher and principal openness behavior variables of school climate. Paired samples *t* tests, stepwise multiple regression, and multivariate analysis of covariance were performed to analyze the data.

First, results of paired samples *t* tests indicated that significant differences exist between teachers' perceptions of the leadership styles of principals and instructional leaders. Next, results of stepwise multiple regressions indicated that (a) the principals' transformational leadership style predicted the teacher openness behavior variable of school climate and (b) the principals' transformational leadership style, principals' transactional leadership styles, instructional leaders' passive leadership style, and instructional leader' transformational leadership style predicted the principal openness behavior variable of school climate. Finally, results of multivariate analysis of covariance indicated that the discrepancy between principals' self-perception of the transformational leadership style and teachers' perceptions of the principals' transformational leadership style significantly affected the teacher and principal openness behaviors variables of school climate. However, no significant effect was found when the analysis was conducted with instructional leaders in place of principals.

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2008



*School of Professional Studies  
Department of Education and Educational Psychology  
Doctor of Education in Instructional Leadership*

Doctor of Education Dissertation

*A Comparison of Teachers' Perceptions of the Leadership Styles of Middle School Principals  
and Instructional Leaders and Their Relationship to Teachers' Perceptions of School Climate*

Presented by

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## CHAPTER ONE:

### INTRODUCTION TO THE STUDY

Over the past two decades, theorists and researchers have consistently cited the importance of effective school leadership in relation to improved educational outcomes (Fullan, 2002; Hallinger & Heck, 1998; Leithwood, Jantzi, & Steinbach, 1999; Leithwood, Louis, Anderson, & Wahlstrom, 2004). Most often this refers primarily to the administrative personnel and neglects to recognize the presence of other levels of leadership (Muijs & Harris, 2003b; Rutherford, 2006). Today, it is no longer accepted that the principal is the sole leader of a school. Leadership is distributed across the school community with administrative leaders, teachers, and policymakers taking on complementary roles and responsibilities (Elmore, 2000; Hargreaves, 2001; Smylie & Denny, 1990; Spillane, Halverson, & Diamond, 2004). A school's success is due to a collective approach to leadership (Bishop, Tinley, & Berman, 1997; Harris, 2003, 2004; Leithwood & Jantzi, 2000b; Sergiovanni, 1994; Smylie, 1995). One or few administrators can no longer serve in leading an instructional program for an entire school without substantial participation from other educators (Hallinger, 2003; Hallinger & Murphy, 1985; Harris, 2005a; Lambert, 2002, 2003; Lashway, 2002; Southworth, 2002).

In recent times, expert teachers have been called upon to assume leadership functions at the instructional and organizational levels (Frost & Harris, 2003; Harris, 2005b). These leaders are assigned formal positions in the already highly specialized administrative structure of schools (Darling-Hammond, Bullmaster, & Cobb, 1995). Crowther, Kaagan, Fergusson, and Hann (2002) suggested that a division of leadership responsibilities is needed in which administrators assume primary responsibility for strategic leadership while teachers

take on primary responsibility for pedagogical or instructional leadership. However, increasing expectations attached to these new roles can be confusing, demanding, and overwhelming to instructional leaders, their colleagues, and their administrators (Collinson & Sherrill, 1997). Therefore, teacher leaders are forging their roles on site (Sherrill, 1999), and new university programs that train educators in the field of instructional leadership are emerging. Such programs are preparing educators to establish innovative learning environments, respond to reform initiatives, and transform their educational organization through collaborative approaches (Western Connecticut State University, n.d.). These educators are being prepared for formal instructional leadership roles within the school community; however, little is known about how they can effectively lead their colleagues and how their leadership styles differ from those of their administrative counterparts.

Leadership style is the manner and approach of providing direction, implementing plans, and motivating people. Leadership style has been defined as the consistent behavioral patterns that leaders exhibit when attempting to influence the activities of others with whom they work as perceived by those people (Hersey, Blanchard, & Johnson, 2001). Research in business, political, military, and educational venues has developed theories of leaders' styles from the perceptions of followers. James MacGregor Burns (1978) first described leadership as a paradigm in which leadership styles fall into two broad categories of influence. He termed one as *transformational leadership* and the other as *transactional leadership*. Transformational leadership is founded on the belief that leaders and followers can raise each other to higher levels of motivation and morality, whereas transactional leadership is founded on the belief that leaders seek to motivate followers by appealing to their own self-interests (Burns, 1978). Over the past two decades, there has been a growing emphasis on the link



between leadership style and the culture or climate of an organization (Dalin, 1996). As a result of this emphasis, there has been an increase of interest in examining how transformational leadership enables leaders to alter the climate within school communities.

### Rationale and Related Literature

Inspired by Burns's theory of transforming leadership, Bass and his colleagues developed the model of transformational leadership and the means to measure it. Bass (1985) viewed the transformational-transactional leadership paradigm as being comprised of complementary constructs rather than Burns's original theory in which they represent polar constructs. Burns (1978) discussed leadership as transforming and inspiring, whereas his successors examined and pursued the behaviors and attributes of transformational leaders.

Kenneth Leithwood and his colleagues bridged Bass's leadership construct to the field of education. Leithwood (1992, 1994) determined that the transformational school leader pursues three fundamental goals: helping staff develop and maintain a collaborative, professional school culture; fostering teacher development; and helping teachers solve problems more effectively. Once teachers accept leadership behaviors as appropriate or essential, leadership will move to the transformational stage of bonding, as followers and leaders share a common vision and commitment to improvement (Sergiovanni, 1995).

Transformational leaders motivate colleagues with whom they work by promoting a positive, collegial climate (Blatt, 2002; Leithwood & Jantzi, 2000b). Transformational leaders do not merely react to environmental circumstances, rather they attempt to shape and create them (Bass & Avolio, 1994b). Transactional leaders motivate followers through negotiation, exchange, and contractual dimensions (Bass, 1985). Transactional components are fundamental to the stability of an organization. In contrast to these active leadership

styles, a passive style of leadership is characterized by an absence of leadership; it is often referred to as *non-leadership* (Bass, 1985). It has been shown that in effective organizations, transformational leadership augments the effects of transactional leadership (Bass, Avolio, Jung, & Berson, 2003; Chan & Chan, 2005; Waldman, Bass, & Yammarino, 1990). In order for schools to run effectively, the leadership of the organization must encompass transformational behaviors while also utilizing transactional behaviors when appropriate (Bass & Riggio, 2006; Leithwood & Jantzi, 1999b, 2000b; Sosik, Potosky, & Jung, 2002).

Despite sometimes overwhelming managerial responsibilities, which tend to be more transactional in nature, principals are expected to act as visionaries, or transformational leaders, for a school and community (Bredeson, 1985; Stronge, 1993; Tarter, Sabo, & Hoy, 1995). In fact, research focusing on principals has determined that teachers prefer school leaders who exhibit a more transformational style of leadership (Chirichello, 1999). In addition, transformational leadership behaviors have been associated with improved educational outcomes (Goens & Clover, 1991; Leithwood & Jantzi, 1999a, 2000a; Leithwood & Riehl, 2003; Silins, 1994). A substantial body of literature and numerous empirical studies demonstrate that teachers associate a more open school environment with principals who exhibit transformational characteristics: establishing trusting relationships, encouraging participation in the decision-making process, providing individualized consideration, and inspiring others to work toward a common goal or purpose (Blatt, 2002; Chirichello, 1999; Leithwood, 1994; Lucas & Valentine, 2002; Pepper, 2002; Silins, 1994; Smylie, 1992).

Some authors posit that teachers who perform formal leadership roles inherently possess and exhibit many characteristics associated with transformational leadership

(Crowther, 1997; Pounder, 2006; Wetig, 2002; York-Barr & Duke, 2004). Lucas and Valentine (2002) conducted a study focusing on teachers' perceptions of the leadership styles of teacher leader teams and principals. They found that teachers perceived teacher leader teams to be important in motivating colleagues through some transformational behaviors: fostering commitment to school goals, providing individualized support and intellectual stimulation to teachers, and holding high expectations for their peers' performance. The findings also indicated that principals and teacher leadership teams have different roles to play in the exercise of transformational leadership and in shaping the climate of a school. They suggested that future studies need to be conducted to determine the specific transformational behaviors that teacher leaders should exhibit in relation to their administrative counterparts. Although it has been suggested, no studies have been conducted that examine the difference between the leadership styles of instructional leaders and principals as measured by the perceptions of the teachers.

Perception of leadership style and behavior is directly correlated to perception of the climate of a school (Benda & Wright, 2002; Booker, 2003; Hudson, 1983; Mendel, Watson, & MacGregor, 2002; Patrick, 1995; Sellars, 1984). Consistently open principal behaviors lead to buildings in which teachers share information, listen to others' concerns, and support their colleagues (Kelley, Thorton, & Daugherty, 2005). In addition, Pashiardis (2001) has suggested that school climate can be negatively affected when there is disagreement between teachers' perceptions of the leadership styles employed by the principal and the perception the principal holds. There is evidence that teachers may have views that differ from their principals' self-perceptions (Booker, 2003; Kelley et al., 2005; Sellars, 1984). Such disagreement in perceptions can be detrimental to an organizational environment and may

ultimately affect the climate of a school (Chaffe, 1981; Stueven, 1985). The aforementioned studies have involved principals; however, it is important to examine the influence instructional leaders have on the school climate due to the recent emergence of their role within the school community.

### Problem Statement

Currently, there exists a substantial body of literature and numerous empirical studies dealing with principals' leadership styles and their effect on school climate (Benda & Wright, 2002; Blatt, 2002; Chirichello, 1999; Hudson, 1983; Leithwood, 1994; Mendel et al., 2002; Patrick, 1995; Pepper, 2002; Sellars, 1984; Silins, 1994; Smylie, 1992). There is some literature that describes how the disagreement between teacher and principal perceptions of leadership styles exhibited by principals affects school climate (Chaffe, 1981; Pashiardis, 2001; Stueven, 1985). Conversely, there remains surprisingly limited literature and empirical data on the leadership styles employed by instructional leaders, how their leadership styles differ from principals, and how differences in teacher and principal perceptions affect the climate of a school. The recent emergence of formalized leadership roles for teachers necessitates research in this area so that instructional leaders can determine their place in the leadership structure of a school and understand how the roles they play affect the climate of a school (Lucas & Valentine, 2002; Pounder, 2006).

The present study addressed the problems mentioned above and helped to build upon current administrative leadership literature by examining instructional leaders in relation to principals. The researcher compared the leadership styles of middle school principals and instructional leaders as measured by the perceptions of the teachers. The researcher explored how teachers' perceptions of leadership styles of principals and instructional leaders related

to their perceptions of the teacher and principal behavior variables of school climate. In addition, the researcher examined how teachers' perceptions of the teacher and principal behavior variables of school climate were affected by the disagreement or agreement between the self-perceptions of the transformational leadership style and the teachers' perceptions of the transformational leadership style for school leaders. The transformational leadership style was chosen as the focus for this part of the study because of the strong relationship described in the literature between transformational leadership and school climate.

### Significance

Instructional leaders must know how their followers view them as leaders and how leadership styles relate to the climate of a school. It is important to understand how instructional leaders differ from principals because of the emergence of these new positions for teacher leaders. This study will assist educators in understanding how teachers in middle schools perceive the leadership styles of both principals and instructional leaders and how these perceptions relate to how they perceive their interactions with each other and with the principal. Results of this study will allow school leaders to better understand the leadership structures within their school communities and how to improve them. The investigation will also provide valuable information to faculty at institutions of higher education so that they may improve the preparation of administrative and instructional leaders.

### Definition of Terms

1. *Instructional Leader* is a teacher leader in a formalized position within the school community. The formal leadership roles that the instructional leader undertakes

have both management and pedagogical responsibilities (Muijs & Harris, 2006). This leader is an important source of instructional expertise as he or she influences curriculum, teaching, and learning (Harris, 2005b; Muijs & Harris, 2003a). A review of the literature suggests that the following positions are included under this definition: mentor, coach, subject coordinator, curriculum specialist, or instructional specialist (Berry & Ginsburg, 1990; Darling-Hammond et al., 1995; Harris, 2005b; Muijs & Harris, 2003b, 2006). For the purpose of the present study, the instructional leader is the person designated by the principal as the one performing the following five functions: coaching and mentoring teachers; building and shaping curriculum knowledge; leading in-service training and staff development activities; providing curriculum and instructional resources; and engaging other teachers in collaborative planning, reflection, and research. The five functions were found to be the most frequently mentioned by a sample of 47 teachers surveyed by the researcher.

2. *Administrative Leader* is one who administers or manages in the school organization or community. An administrative leader's responsibilities are varied and may include the following: vision and planning, curriculum, discipline, communication, community relations, professional development, budget and finances, and personnel issues (Quinn, 2002). Principal was the administrative leader used for the purpose of this study.

- a. *Principal* is the educator in the organization who sees and understands the total educational process in the school building and is responsible for everything that goes on in the school (Bredeson, 1985).

3. *Middle School* is a separately organized and administered school between the elementary and senior high schools; grade levels vary but include 5-8, 6-8, or 7-8 grade configurations (Hoy & Sabo, 1998).
4. *Transformational Leader* inspires through a shared vision, models desired behaviors, provides individualized support, and fosters intellectual stimulation (Bass, 1997).
5. *Transactional Leader* motivates followers through contingent rewards, focuses on actively setting standards, and monitors for the occurrences of mistakes (Bass, 1997).
6. *Passive Leader* avoids accepting responsibilities, is absent when needed, and resists expressing his or her views on important issues (Bass, 1997).
7. *Type of Agreement* is categorized into four groups: high-high (the leader's perception of transformational leadership style is high and the teachers' perception of the leader's transformational leadership style is high), high-low (the leader's perception of transformational leadership style is high and the teachers' perception of the leader's transformational style is low), low-high (the leader's perception of transformational leadership style is low and the teachers' perception of the leader's transformational style is high), and low-low (the leader's perception of transformational leadership style is low and the teachers' perception of the leader's transformational style is low).
8. *School Climate* is the teachers' perceptions of the workplace or set of internal characteristics that distinguishes one school from another and influences the behaviors of its members (Hoy, Hoffman, Sabo, & Bliss, 1996). Climate falls

within a continuum ranging from closed to open and is assessed through two general dimensions on the *Organizational Climate Description Questionnaire* (OCDQ): teacher behavior and principal behavior.

- a. *Teacher Behavior* is the mean score of the collegial, committed, and disengaged subscale behaviors from the OCDQ-RM (Hoy & Sabo, 1998). These three characteristics of teacher behavior define the *teacher openness behavior* that is characterized by low disengagement, high commitment, and high collegial relations.
- b. *Principal Behavior* is the mean score of the supportive, directive, and restrictive subscale behaviors from the OCDQ-RM (Hoy & Sabo, 1998). These three characteristics of principal behavior define the *principal openness behavior* that is characterized by high supportiveness, low directiveness, and low restrictiveness.

### Research Questions

Several research questions were formulated to guide this study. They included:

1. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders differ?
2. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the teacher behavior variable of school climate?
3. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the principal behavior variable of school climate?



4. Does the type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and principals' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate?
5. Does the type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and instructional leaders' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate?

## Methodology

### *Setting and Sample*

For this study, middle schools in Connecticut's District Reference Group (DRG) B and C served as the population. Connecticut is comprised of nine District Reference Groups. Participants for the present study were drawn from seven middle schools in Connecticut, and a sample of convenience was utilized. After principals were asked to participate in the study via email and phone contact, a letter was sent to district level personnel. Instructional leaders were selected from those who were willing to participate. Finally, the teachers in each school were asked to participate. Those individuals who gave informed consent comprised the sample of seven principals, seven instructional leaders, and 114 teachers. Teachers completed a leadership style survey for one principal and one instructional leader per middle school in addition to a school climate questionnaire. The principal and the instructional leader each completed the self-rater form of the leadership style inventory. The unit of analysis for this study was the teachers, since the leadership styles of the school leaders and their relationship to school climate variables were examined through teachers' perceptions.

## *Instrumentation*

### *Multifactor Leadership Questionnaire*

The *Multifactor Leadership Questionnaire-5X* (MLQ-5X) was used to assess the leadership styles of the principals and instructional leaders based on the perceptions of the teachers with whom they work and their own perceptions of their leadership styles. In response to Burns' definition of transformational leadership, Bass developed the *Multifactor Leadership Questionnaire* in 1985, to measure both transformational and transactional leadership styles. He intended to investigate the nature between the relationship of the styles, behaviors, and their effectiveness. The instrument was conceptually developed and empirically validated to reflect the complementary dimensions of transformational and transactional leadership with subscales to further differentiate the behaviors of leaders. It has been revised and refined several times, and the MLQ-5X is now known as the primary quantitative instrument to measure the transformational leadership construct.

### *Organizational Climate Description Questionnaire-RM*

The *Organizational Climate Description Questionnaire* (OCDQ-RM) was administered to the teachers within a given school to assess the organizational climate. Based on Halpin's (1966) concept of open to closed climate, Hoy and Sabo (1998) developed the OCDQ-RM specifically for middle schools. The broad climate perspective was used to examine the relationships between the school and environment, the leadership of the principal, and the relationships among teachers. Ultimately, the instrument is a measure of teacher and principal behaviors in middle schools as it relates to school climate. The OCDQ-RM is a useful instrument with extremely high reliability.

### *Research Design and Data Analyses*

To address the first research question, determining the differences in leadership styles between middle school principals and instructional leaders as perceived by teachers, a causal comparative design was used. Paired-samples *t* tests were used to determine the difference between the two group means (principal and instructional leader) for each type of leadership style (transformational, transactional, and passive).

A correlational design was utilized to examine the second and third research questions to determine to what extent teachers' perceptions of the leadership styles of principals and instructional leaders predicted their perceptions of the teacher and principal behavior variables of school climate. Stepwise multiple regression was performed to determine the relationship between the variables.

Questions four and five used a causal comparative design in which the type of agreement between the teachers' perceptions and the leader's self-perceptions of the transformational leadership style were compared to the teacher and principal behavior variables of school climate. The data were analyzed using a MANCOVA.

### *Limitations*

This study was limited to middle schools from the same or similar DRGs in the state of Connecticut; therefore, results can only be generalized to middle schools in districts whose students' families are similar in education, income, occupation and need, and that have roughly similar enrollment. Randomization was not possible for the groups of principals and instructional leaders because the groups were intact and fixed (Fraenkel & Wallen, 2003). In addition, participation in this study was completely voluntary; therefore, the researcher had no control over the teachers, principals, and instructional leaders willing to participate. There

is a possibility that the teachers, principals, and instructional leaders participating in the study may have had a more positive relationship with each other than those who were unwilling to participate in the study. Further limitations to this study are discussed in chapter five.

### Organization of the Study

This study is organized in five chapters. Chapter one introduces the study. Chapter two reviews the relevant literature and empirical studies that support the study. Chapter three provides the methodology of the study including the design, subjects, procedures, instrumentation, data analysis, and limitations. Chapter four presents the results of the study. Lastly, chapter five presents conclusions, discussions of the results, recommendations, and suggestions for future research.

## CHAPTER TWO:

### LITERATURE REVIEW

This chapter presents a review of selected literature and theoretical perspectives related to transformational leadership, instructional leadership with respect to principals and teacher leaders, and school climate. In addition, the chapter reviews empirical studies focusing on the relationship between these variables. In the first section, the evolution of transformational leadership theory and the history of its application to school settings are discussed. Next, the conceptual models of instructional leadership, including principal-centered and shared instructional approaches, are considered. Next, the origins and assessment measures of school climate follow. The last section reviews relevant empirical studies that investigated the relationships among the leadership styles of school leaders and school climate. The purpose of this review is to provide an understanding of previous related research and to provide a rationale for the selection of the variables and methodologies included in this study.

#### Leadership Theory: Transformational Leadership

Leadership is a widely researched subject, and it has garnered increasing attention and serious academic investigation in a myriad of organizational settings from politics and business to social organizations and education (Masood, Dani, Burns, & Backhouse, 2006). Researchers have attempted to understand the unique factors, qualities, and behaviors that contribute to effective leadership because of the importance leadership plays in the success or failure of an organization (Chan & Chan, 2005; Judge & Bono, 2000). Much of the research has focused on differentiating between leader and follower characteristics and perceptions of

behaviors exemplified by effective leaders. Examining approaches of leaders who have successfully transformed organizations in different settings has remained at the forefront of academic discussion and empirical research.

In the past two decades, perspectives of leadership theories have been burgeoning and considerable progress has been made in understanding leaders' effectiveness according to theoretical perspectives. However, when many of the leadership approaches were tested, they led to unsatisfactory results in theoretical and practical application (Chan & Chan, 2005). Ultimately, these investigations led to the conclusion that leaders and leadership are crucial but complex components of organizations (Chan & Chan, 2005; Judge & Bono, 2000).

Although numerous leadership theories continue to attract attention of organizational researchers, transformational leadership has engendered the most interest in recent leadership research. (Judge & Bono, 2000; Judge & Piccolo, 2004). The theoretical model of transformational leadership was originated in the late 1970s by James MacGregor Burns and was further advanced by Bernard J. Bass. Although the theory derived from a political and social science perspective which was then applied to businesses, the conceptualization offers an important vehicle by which to study leadership in educational settings. In this section, the evolution of the transformational-transactional paradigm is first discussed. Then, the influence of transformational leadership on organizational culture is briefly considered. Lastly, the transformational leadership construct is examined in relation to the field of education.

### *Evolution of the Transformational-Transactional Paradigm*

The theory of transformational leadership first emerged with James MacGregor Burns in the late 70s and has evolved with the work of Bernard M. Bass and his colleagues. Burns

discussed leadership as transforming and inspiring, whereas his successors examined and pursued the attributes and behaviors of transformational leaders. The evolution of transformational leadership began with Burns's original perspective described in his groundbreaking work, *Leadership*, written in 1978, and his follow up book, *Transforming Leadership*, in which he expanded his theory 30 years later. The evolution of transformational leadership theory concluded with Bass's application of the theory to organizational settings in which a full range of leadership is described and measured through the *Multifactor Leadership Questionnaire*.

#### *James MacGregor Burns and the Emergence of Transformational Leadership*

James MacGregor Burns immersed himself in the study of leadership from a social science perspective and through an analysis of leadership within historical contexts. He first defined leadership as “leaders inducing followers to act for certain goals that represent the values and motivations—the wants and needs, the aspirations and expectations—of both leaders and followers” (Burns, 1978, p.19). He posited that the genius of leadership was situated in the manner in which leaders acted on these values and motivations, and he further distinguished leadership from power wielders in that leadership represents an integral relationship between leader and followers. Burns described leadership as a social exchange process in leader-follower relation in which “the essence of the leader-follower relation is the interaction of persons with different levels of motivations and of power potential, including skill, in pursuit of a common or at least joint purpose” (p. 19). The interaction assumed two fundamentally different forms, and Burns termed these two broad categories of influence as *transformational leadership* and *transactional leadership*.

Transformational leadership is founded on the belief that leaders and followers can raise each other to higher levels of motivation and morality. At the heart of transformational leadership is the leader's desire and ability to raise the consciousness of others by appealing to powerful moral values and ideals (Burns, 1978). The leader is able to transform followers beyond the dishonorable emotions of jealousy, greed, and fear to higher principles of liberty, justice, and humanitarianism.

Transforming leadership occurs when a leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower. The result...is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents. (Burns, 1978, p. 4)

This model emphasizes a collaborative approach in which a community is empowered to succeed through a moral, socially-oriented leader (Burns, 1978). Ultimately, transformational leaders inspire followers to identify with a vision that reaches beyond their own immediate self-interests and offer a purpose that transcends short-term goals and focuses on higher order intrinsic needs (Judge & Piccolo, 2004).

In contrast to transformational leadership, Burns (1978) described transactional leadership as an exchange between leader and follower. Transactional leadership theory is founded on the idea that the leader-follower relationship is based on a series of exchanges or implicit bargains between the leader and followers. Burns believed that transactional leaders seek to motivate followers by appealing to their self-interests. Followers receive certain valued outcomes when they act according to their leader's wishes. It is sometimes called *bartering* because it is based on an exchange of services; thus, leaders "approach followers with an eye to exchanging one thing for another...Such transactions comprise the bulk of the



relationships among leaders and followers” (Burns, 1978, p. 4). Transactional leaders obtain cooperation by establishing exchanges with followers and then monitoring the exchange relationship. When the job and the environment of the follower fail to provide the necessary motivation, the leader, through his or her behavior, can be effective by compensating for the deficiencies (Den Hartog, Van Muijen, & Koopman, 1997). Transactional leadership may encourage leaders to adapt their style and behavior to meet the perceived expectations of the followers. Ultimately, these leaders are considered to be self-oriented.

Burns (1978) considered transformational leadership and transactional leadership as falling at opposite ends of a continuum. A leader’s style is either transformational or transactional, and the key to effective leadership is moving beyond transactions between leader and follower toward the discovery of a shared purpose. Successful leaders elicit action from followers by appealing to their mutual motivations, needs, and wants (Burns, 1978). The effect of transactional leadership is minor and automatic, whereas transformational leadership has a more profound effect in which a metamorphosis in form or structure occurs (Burns, 2003). Thus, superior leadership is seen as transformational as leaders broaden and elevate the interests of their followers, generate awareness and acceptance of the group vision among followers, and move followers to transcend their own self-interests for the good of the group (Burns, 1978, 2003). Therefore, an appeal to social values encourages followers to collaborate with others and engage in the continuous change process (Burns, 2003). Crucial change occurs with mutually empowering interactions between leaders and followers as “leaders take the initiative in mobilizing people for participation in the processes of change, encouraging a sense of collective efficacy, which in turns brings stronger feelings of self-

worth and self-efficacy” (Burns, 2003, p. 25). Ultimately, leadership signifies a process that is complex, fluid, and transforming.

*Bernard M. Bass and the Application of Transformational Leadership to Organizational Settings*

Bernard M. Bass (1985, 1997), along with his colleague Bruce J. Avolio (Avolio & Bass, 2002; Bass & Avolio, 1994a), extended Burns’s transformational leadership theory and applied the theory to business and political organizations. In contrast to Burns’s original view that transformational and transactional leadership represent opposite ends of the same continuum, Bass (1985, 1997) asserted that transformational leadership and transactional leadership are conceptually separate and independent dimensions that appear simultaneously in the behavioral repertoire of leaders. They are multidimensional concepts composed of several important underlying constructs. Each construct is a composite of leaders’ behaviors. Thus, a leader can exhibit both transformational and transactional behaviors.

Bass elaborated considerably on the behaviors that manifest transformational leadership and transactional leadership. According to Bass’s original theory, there are four dimensions of transformational leadership, three dimensions of transactional leadership, and a non-leadership component. These dimensions were initially derived from interviews in which individuals were asked to describe leaders who caused them to perform beyond expectations (Judge & Bono, 2000). Subsequent questionnaire development and analysis refined these dimensions, and the *Multifactor Leadership Questionnaire* (MLQ, Bass & Avolio, 1995) was conceptually developed and empirically validated to reflect the complementary dimensions of transformational and transactional leadership with subscales to further differentiate the behaviors of leaders. This instrument has been widely used and

empirically supported in terms of its validity and reliability through a great deal of vigorous theoretical and practical research (Avolio, Bass, & Jung, 1999; Den Hartog, et al., 1997; Lowe, Kroeck, & Sivasubra, 1996; Tejeda, Scandura, & Pillai, 2001).

The behaviors and attributes measured by the MLQ represent what Bass and Avolio (1992) refer to as a full range of leadership model. This model depicts the whole range of leadership styles from non-leadership or passive leadership to a more transformational style of leadership. Every leader displays a frequency of both the transformational and transactional factors, but each leader's profile involves more of one and less of the other. According to Bass and Avolio (1992), the revised paradigm forms the foundation to move followers beyond what was expected. Transformational leaders move followers beyond immediate self-interests through the use of (a) idealized influence, (b) inspirational motivation, (c) intellectual stimulation, or (d) individualized consideration to inspire their followers to achieve success for the community or culture (Bass & Avolio, 1995).

*Idealized influence.* Idealized influence arouses followers to feel a powerful identification and strong emotion toward the leader. The leader exhibits high standards of moral and ethical conduct and engenders loyalty from his or her followers (Bass, 1997). The leader serves as a role model as the followers seek to emulate the leader's behavior. Leaders who provide idealized influence exhibit the following behaviors: demonstrating unusual competence; celebrating followers' achievements; addressing crises head on; and using power for positive gain (Kirkbride, 2006). Ultimately, these leaders are able to obtain extra effort from followers to achieve optimal levels of development and performance (Bass & Avolio, 1992).

*Inspirational motivation.* Inspirational motivation entails elevating the expectations of followers and motivating them to superior performance. The leader models high values and clearly communicates a common inspiring vision so that followers desire to become part of the leader's team (Bass, 1997). Leaders who provide inspirational motivation exhibit the following behaviors: presenting an optimistic and attainable view of the future; stimulating enthusiasm; building confidence; molding expectations and shaping meaning; clarifying key issue using; and creating a sense of purpose (Kirkbride, 2006). They stimulate the energy needed to accomplish higher levels of performance and development through their vision (Bass & Avolio, 1992).

*Intellectual stimulation.* Intellectual stimulation involves the leader encouraging followers to view problems from differing perspectives with new increased awareness (Bass, 1997). As the leader promotes divergent thinking, followers develop more creative and innovative strategies in the problem-solving process (Bass, 1999). Leaders who provide intellectual stimulation exhibit the following behaviors: re-examining assumptions or challenging organizational norms; recognizing patterns that are difficult to imagine; willing to put forth or entertain all ideas; encouraging followers to revisit problems; and creating a readiness for changes in thinking (Kirkbride, 2006). Ultimately, followers become more effective problem solvers, and they develop their own capabilities to recognize, understand, and solve future problems more innovatively with respect to their analysis of problems and the strategies they use to resolve them (Bass & Avolio, 1992).

*Individualized consideration.* Individualized consideration identifies the leader as a coach to provide support and encouragement for specific followers. The leader recognizes the unique growth and developmental needs of all followers, demonstrates concern for each

individual, and creates a supportive learning environment for each follower (Bass, 1997).

Leaders who provide individualized consideration exhibit the following behaviors:

recognizing differences among followers in their strengths and weakness; actively listening; assigning tasks based on individual abilities and needs; encouraging a two-way exchange of views; and promoting self-development (Kirkbride, 2006). Leaders may delegate tasks but ensure there is a supportive environment or community in which to succeed (Bass, 1999). In turn, followers take on greater responsibility for their personal development, including their job challenges (Bass & Avolio, 1992).

In summary, transformational leadership involves dramatic organizational change through developing and implementing a vision, modeling projected behaviors, and providing consistent individualized support and intellectual stimulation. Leaders develop followers and promote positive changes in individuals and entire organizations. Ultimately, leaders create followers fully capable of handling challenges and followers become more transformational themselves as leaders are developing leaders (Avolio, Waldman, & Yammarino, 1991).

In contrast to transformational leaders, transactional leaders define and communicate the work that must be done by followers, how it will be done, and the rewards followers will receive for successfully completing the stated objectives (Avolio et al., 1991). As a result, followers understand their job roles and the expectations set for them by the leader and the organization. Followers are motivated and directed to achieve expected standards for performance because transactional leaders clarify what followers receive for the specific level of effort and performance required of them. The skills and behaviors that characterize transactional leadership include the following: (a) contingent reward, (b) passive

management-by-exception, (c) active management-by-exception, and (d) laissez-faire leadership.

*Contingent reward or reinforcement.* Contingent reward refers to leadership behaviors focused on exchange of resources; leaders provide tangible or intangible support and resources to followers in exchange for their efforts and performance. The leaders “give out assignments, negotiate or contract with followers or they may participate in discussing what is to be done in exchange for implicit or explicit rewards and the allocation of desired resources” (Bass, 1997, p. 4). The leader influences behavior by recognizing and clarifying the work needed to be accomplished; exchanging assistance and support for required effort; providing commendations for meeting objectives and successful performance; arranging mutually satisfactory agreements and following up to make sure that the agreement is satisfactorily met; and negotiating for and providing the resources needed by followers to accomplish their objectives (Kirkbride, 2006).

*Management-by-exception.* Transactional leaders engage in active management-by-exception or passive management-by-exception. Active management entails the leader actively monitoring followers’ performance and taking corrective action as necessary. The leader actively sets standards and monitors for deviations from these standards. Active management style is characterized by the following behaviors: arranging to know if something has gone wrong; attending mostly to mistakes and deviations; remaining alert for infractions of the rules; and teaching followers how to correct mistakes (Kirkbride, 2006). Passive management suggests that leaders wait to take action until deviations or mistakes are brought to their attention. The followers are motivated by “the leaders’ promises, rewards and/or threats of disciplinary actions or punishments. The leaders’ actions depend on whether

the followers carry out what the leaders and followers have contracted to do” (Bass, 1997, p. 4). The leader only intervenes when problems become serious and exceptional circumstances become obvious. Passive management style is characterized by the following behaviors: taking no action unless a problem arises; avoiding unnecessary changes; enforcing corrective action when mistakes are made; placing energy on maintaining the status quo; and fixing the problem and resuming normal functioning (Kirkbride, 2006).

*Passive-avoidant or laissez-faire.* In laissez-faire leadership, the leader takes a hands-off approach. As a result, laissez-faire leadership indicates an absence of leadership—an absence of both transformational and transactional leadership— and represents the most extreme form of passive or non-leadership (Den Hartog et al., 1997). The leader avoids making decisions and abdicates responsibilities, is absent when needed, fails to follow up requests for assistance, resists expressing personal views on important issues, refuses to take sides in a dispute, and is indifferent to followers’ needs (Kirkbride, 2006). Due to the fact that the leader offers little in terms of direction or support, followers are often in conflict with each other and seek vision from elsewhere in the organization. Passive-avoidant leaders avoid specifying agreements, clarifying expectations, and providing goals and standards to be achieved by followers (Bass et al., 2003). The passive management-by-exception dimension bears resemblance to the laissez-faire component. Therefore, researchers have argued that the passive-by-exception and laissez-faire dimensions should be treated separately from the other transactional dimensions (Avolio, Bass, & Jung, 1999; Bass, 1999; Judge & Piccolo, 2004). These two dimensions are considered as a separate scale, passive leadership.

In summary, transactional leaders are characterized by contingent reward and active management-by-exception style of leadership. Transactional leaders develop exchanges or

agreements with their followers, pointing out what followers will receive if they do something right as well as wrong (Bass & Avolio, 1994b). Research has shown that transactional leadership, in its active forms, is an effective means of maintaining and achieving acceptable standards of performance at all organizational levels (Avolio et al., 1991) and that some dimensions of transactional leadership are positively correlated with transformational leadership (Bass, 1999).

Both transformational and transactional approaches to leadership are linked to the achievement of goals or objectives. The models differ, however, in terms of the process by which the leader motivates followers and on the type of goals set (Den Hartog et al., 1997; Hater & Bass, 1988). Transformational leadership has been positively correlated with how followers perceive leader effectiveness, how much effort followers will expend for the leader, how satisfied the followers are with the leader, and how well followers performed as rated by the leader; transactional leadership has been positively correlated with these outcomes as well but relationships were lower (Bass, 1985; Bass, Avolio, & Goodheim, 1987; Waldman, Bass, & Einstein, 1987). Results of meta-analyses conducted by Lowe et al. (1996) and Fuller et al. (1995) showed a strong, positive relationship between followers' perceptions of transformational leadership and the outcomes of effectiveness, satisfaction, and extra effort, when all variables were measured by the MLQ. Both transformational and transactional leadership (contingent reward) positively predicted follower performance; findings also indicated that there is a negative association between laissez-faire leadership and follower performance, effort, and attitudinal indicators (Bass, Avolio et al., 2003; Dvir, Eden, Avolio, & Shamir, 2002).



Components of both transformational and transactional leadership are needed for the maintenance and growth of complex organizational systems (Bass, Avolio, & Goodheim, 1987). Although conceptually distinct, transformational and transactional leadership can be displayed by the same individual in different amounts and intensities. As Bass (1985) theorized and numerous studies empirically verified, transformational leadership augments the effects of transactional leadership, rather than substituting for it. It has been shown that transformational leadership adds to the effectiveness of transactional leadership, and the best leaders are both (Bass, Avolio, Jung, & Berson, 2003; Bycio, Hackett, & Allen, 1995; Chan & Chan, 2005; Hater & Bass, 1988; Jung & Avolio, 2000; Kane & Tremble, 2000; Rowold & Heinitz, 2007; Seltzer & Bass, 1990; Waldman et al., 1990). Transformational leadership augmented transactional leadership in contributing to followers' effort, satisfaction, and effectiveness ultimately promoting the following follower outcomes: admiration, respect, and trust of leader; motivation and commitment to shared goals and visions; innovative and creative approaches; and growth reflecting the unique needs and desires of individual followers.

#### *Transformational-Transactional Leadership and Organizational Culture*

Organization culture is the glue that holds the organization together as a source of identity and distinctive competence (Bass, 1997; Bolman & Deal, 1998). The organizational culture is the learned pattern of behavior shared from one generation to the next. It includes the values and assumptions shared by members about what is right, what is good, and what is important. Schein (1985) defined culture as the basic assumptions and beliefs shared by members of a group or organization. Most organizational scholars recognize that organizational culture has a powerful effect on the performance and effectiveness of an

organization (Bolman & Deal, 1998). An organization's culture is reflected by what is valued, the dominant leadership styles, the language and symbols, the procedures and routines, and the definitions of success that makes an organization unique.

An organization's culture develops from its leadership while the culture of an organization can also affect the development of its leadership (Bass & Avolio, 1994b). Transactional leaders work within their organization's culture "following existing rules, procedures, and norms; transformational leaders change their culture by first understanding it and then realigning the culture with a new vision and a revision of its shared assumptions, values, and norms" (Bass & Avolio, 1994b, p. 542). In other words, transactional leaders operate within the constraints of an existing organization whereas transformational leaders ultimately change the organization (Bass, 1985; Bass & Avolio, 1994b). According to this perspective, transformational leadership is more likely to reflect social values and emerge in times of distress and change whereas transactional leadership is more likely to be observed in a well-ordered society.

Organizations are likely to have cultures that are characterized by both styles of leadership; however, Bass and Avolio (1994b) suggested that organizations should move in the direction of developing more transformational qualities in their culture while maintaining a base of effective transactional qualities. A transformational culture, like leadership, can augment the transactional culture of the organization.

The inclusion of assumptions, norms and values which are transformationally-based does not preclude individuals pursuing their own goals and rewards. This can occur at the same time where there is alignment with a central purpose and the coordination required to achieve it. Leaders and followers go beyond their self-interests or

expected rewards for the good of the team and the good of the organization. (Bass & Avolio, 1994b, p. 548)

By realigning values and norms, creating new visions, and mobilizing commitment to these visions, leaders can ultimately transform the organization and promote internal and external change (Avolio, Waldman, & Yammarino, 1991; Den Hartog et al., 1997).

Theoretically, transformational behaviors lead to performance beyond expectations in organizational settings. Transformational leadership elevates followers' levels of maturity and ideals and motivate followers to act based on the well-being of others, the organizations, and society. Bass and Avolio (1994b) have argued that leadership and culture are so well interconnected that it is possible to describe an organizational culture as characterized by transformational qualities. In fact, research has empirically demonstrated that there is a relationship between transformational attributes and measures of an organization's effectiveness (Howell & Avolio, 1993; Lowe et al., 1996; Waldman et al., 1987). Block (2003) found that employees who rated their immediate supervisors high in transformational leadership were more likely to perceive the culture of their organization as adaptive, involving, integrating, and having a clear mission. Furthermore, it has been shown that when leadership is seen as a social process that involves leaders, followers, and social situations, organizational culture is found to be a filter through which leadership influences performance; organizational culture mediated the effect of transformational leadership on performance (Ogbonna & Harris, 2000; Xenikou & Simosi, 2006). Ultimately, transformational leaders move their organizations in the direction of more transformational qualities in their cultures, such as accomplishment, intellectual stimulation, and individual consideration, suggesting that transformational leadership does have an effect on culture.

### *Transformational Leadership in Education*

Initially recommended for corporate leaders to successfully transform their businesses to achieve greater productivity, Bass's model has offered a range of leader behaviors shown to promote change and desired outcomes in varied settings (Bass, 1985; Waldman, Bass, & Einstein, 1987; Yammarino & Bass, 1990). Kenneth Leithwood (1992) and his colleagues (Leithwood & Jantzi, 1999a, 1999b, 2000a, 2000b; Leithwood, Jantzi, & Steinbach, 1999) were instrumental in bridging Bass's leadership construct to the field of education.

#### *Kenneth Leithwood and Transformational Leadership Model Adaptation*

Leithwood and his colleagues (Leithwood, 1992, 1994; Leithwood & Jantzi, 1995, 1997, 2000a, 2000b) modified the transformational leadership model based on their own research in school settings. They described transformational leadership along six leadership dimensions and four management dimensions for a total of 10 transformational dimensions. Leithwood and Jantzi delineated the following leadership dimensions as: (a) *fostering development of vision and goals*, e.g. developing, articulating, and inspiring followers with the vision of the future and building consensus on school goals; (b) *providing intellectual stimulation*, e.g. challenging staff to re-examine some of the assumptions about their work and rethink how it can be performed; (c) *providing individualized support*, e.g. demonstrating concern for staff's needs; (d) *symbolizing professional practices and values*, e.g. setting examples for staff and demonstrating openness to change based on new understandings; (e) *demonstrating and holding high performance expectations*, e.g. demonstrating expectations for excellence, quality, and high performance; and (f) *developing a collaborative decision-making structure*, e.g. fostering staff participation and involvement in the decision-making process and distributing leadership among staff. Leithwood and Jantzi suggested that former

models of transformational leadership neglected to include necessary transactional components which were fundamental to the stability of the organization. They termed these as *management dimensions*: (a) *establishing effective staffing practices*, e.g. involving current staff in the hiring and integrating old and new staff; (b) *providing instructional support*, e.g. ensuring availability of resources and technical support and providing feedback on classroom instruction; (c) *monitoring school activities*, e.g. maintaining a positive, visible presence easily accessible to students and staff; and (d) *providing a community focus*, e.g. ensuring practices sensitive to community aspirations and to community involvement with the school. Each of the of the total 10 transformational leadership dimensions is associated with more specific leadership practices (Leithwood et al., 1999).

#### *Research Related to the Transformational Conceptual Model in Education*

Leithwood's conceptual model has yielded extensive empirical studies and investigations over the past decade that contributed significantly to the understanding of how leadership affects the school environment (Stewart, 2006). Empirical evidence exists concerning the effects of this model of transformational leadership on a wide array of organizational and student outcomes (Leithwood, Jantzi, & Steinbach, 1999). Positive relationships were reported between transformational and transactional dimensions as a whole. The effects were related to influence, motivation, stimulation, consideration and contingent reward. Laissez faire or passive leadership was negatively related to both perceptions of leader effectiveness and satisfaction with the leader. Additional studies yielded significant positive relationships among transformational leadership, transactional leadership, and satisfaction with the principal.

In a synthesis of several studies that investigated the impact of the principal from a transformational leadership perspective, Leithwood (1994) noted that people effects were a cornerstone of the transformational leadership model. Leithwood (1994) and Leithwood and Jantzi (1999a) found that teacher and principal effects were significant in school conditions that produce change in people rather than in promoting specific instructional practices. Principal effects were achieved through fostering group goals, modeling desired behavior for others, providing intellectual stimulation and individualized support. In these studies, principals were better at supporting staff, providing recognition, and knowing problems of the school. In addition principals were more approachable, followed through, sought new ideas, and spent considerable time developing human resources. Furthermore, Leithwood and Jantzi (1999b) found that principal transformational leadership had strong, direct effects on school conditions, which in turn had strong direct effects on classroom conditions.

Leithwood and his colleagues also examined the effects of transformational leadership and organizational culture. Leithwood and Jantzi (1990, 1995, 2000b) found that transformational leadership fostered the development of collaborative school cultures. They linked the purposes of transformational leadership with the effects of collaborative school cultures on teachers and students. Leithwood and Jantzi (1990) determined that transformational leaders help build shared meaning and purpose among members of a school, creating high levels of commitment to the accomplishment of the purpose. In addition, Leithwood et al. (1999) concluded that transformational practices were helpful in fostering organizational learning in schools with respect to vision building, individual support, intellectual stimulation, modeling, culture building and holding high performance expectations. Furthermore, evidence about the relationship between transformational

leadership and organizational improvement and effectiveness were found more than any other effects. Therefore, evidence suggests that transformational leadership stimulates improvement and that transformational leadership contributes to a more desirable school culture or climate.

Several studies found that transformational leadership had an impact on teachers' perceptions of school conditions, their commitment to change, and organizational learning that takes place (Bolger, 2001; Day, Harris, & Hadfield, 2001; Fullan, 2001, 2002). In fact, teachers preferred working with principals who (a) demonstrated transformational characteristics and (b) were aware of how their role affected teachers' perceptions (Bolger, 2001). Furthermore, leadership style had an influence on teachers' perceptions of (a) progress with implementing reform initiatives and (b) increase in student learning outcomes. These researchers suggested that the distributive nature of transformational leadership and its targeting of capacity development across a broad spectrum of the school community members influenced teacher perceptions.

#### *Conceptual Model in Relation to Teacher Leadership*

Leithwood (2000) and Leithwood and Riehl (2003) later recognized that effective transformational leaders need to share leadership roles and responsibilities with their followers and that this could be achieved through the promotion of teacher leadership. Authority and influence associated with this form of leadership are not necessarily allocated to individuals occupying formal administrative positions (Leithwood & Jantzi, 2000b). Power is attributed by organizational members to whoever is able to inspire followers to accomplish collective goals (Leithwood, 1994). Leithwood and Riehl (2003) further explained that the transformational school leader pursues three fundamental goals: helping

staff develop and maintain a collaborative, professional school culture; fostering teacher development; and helping teachers solve problems more effectively. Therefore, leadership is not grounded on controlling or coordinating others but instead on providing individual support, intellectual stimulation, and personal vision.

Current models of transformational leadership are considered a type of shared or distributed leadership. Rather than the principal coordinating and controlling from above, transformational leadership focuses on stimulating change through bottom-up participation (Day, Harris, & Hadfield, 2001). These newer conceptual models “explicitly conceptualise leadership as an organizational entity rather than the property of a single individual, accounting for multiple sources of leadership” (Hallinger, 2003, p. 338). Jackson’s (2000) assessment of attempts to develop shared transformational leadership in English schools demonstrated these characteristics. He concluded that as leadership becomes more distributed, uncertainty may increase as a result of more voices engaging in the process. Therefore, transformational leadership requires all participants, including the principal, to function in the messy process of change.

### *Section Summary*

This section reviewed the model of transformational leadership in theory and in its practical application. James MacGregor Burns developed a theoretical model of transformational leadership in which he described a leader as either exhibiting transformational or transactional characteristics. Bernard J. Bass advanced the theoretical model by attributing behaviors to these leadership styles. Along with his colleagues, Bass developed the *Multifactor Leadership Questionnaire* to measure transformational and transaction behaviors in leaders. The MLQ has been used in empirical research studies by



varied organizations, such as the military, business, government, educational systems, and non-profit organizations. These studies have revealed that optimal leadership encompasses both transformational and transactional qualities. In fact, leadership was found to be most effective when transformational leadership augmented transactional leadership. Ultimately, transformational leaders elevate the desires of followers for achievement and self-development, while also promoting and nurturing the organizational culture. Lastly, Kenneth Leithwood and his colleagues adapted the transformational leadership model for school organizations. They also believed that leadership in schools had to encompass both types of leadership styles, which they described as leadership practices and managerial dimensions. Furthermore, research has revealed that transformational leadership in schools assumed distributive characteristics, with effective schools encouraging teacher leadership.

#### Instructional Leaders: The Evolution of Instructional Leadership Models

Transformational leadership and instructional leadership have emerged as two of the most frequently studied models of school leadership (Hallinger, 2003, 2005; Hallinger & Heck, 1998). What distinguishes these models from others is the focus on how administrators and teachers improve teaching and learning (Hallinger, 2003; Stewart, 2006). Instructional leaders focus on school goals, the curriculum and instruction, and the school environment whereas transformational leaders focus on restructuring the school by improving school conditions (Hallinger, 2003; Stewart, 2006). This section reviews how the instructional leadership models evolved from principal-centered approaches to a more distributed view in which teachers share in the decision-making process for instruction and curriculum. The sections are as follows: principals as instructional leaders, shared instructional leadership, and teacher leaders as instructional leaders.

## *Emergence of Instructional Leadership: Principals as Instructional Leaders*

### *Origins of Instructional Leadership*

Instructional leadership models emerged in the 1980s from early research on effective schools (Southworth, 2002). The leadership of the school principal was a key contributing factor in explaining successful change, school improvement, and school effectiveness (Hallinger, 2003). In fact, this research indicated that effective schools exhibited strong, directive leadership focusing on curriculum and instruction. The principals represented the central figure responsible for guiding and controlling instruction (Bossert, Dwyer, Rowan, & Lee, 1982; Edmonds, 1979; Glasman, 1984; Leithwood & Montgomery, 1982). Edmonds determined that principals were instrumental in setting the tone of the school, helping decide on instructional strategies, organizing and distributing the school's resources, and holding high expectations for students. This philosophy situated leadership within formal authority roles that represented a hierarchy of power.

Purkey and Smith (1983) reviewed the research from effective schools and found two common elements: (a) high expectations for student achievement and (b) strong instructional leadership on part of the school principal. Specifically, they found that effective schools demonstrate the following: (a) well-defined school goals and emphases, (b) staff training on a schoolwide basis; (c) control by staff over instructional and training decisions; (d) a sense of order; (e) a system for monitoring student progress; and (f) good discipline. Edmonds (1979) listed six elements of an effective school: (a) strong administrative leadership, (b) high climate of expectation for students' achievement, (c) an orderly atmosphere conducive to learning, (d) student basic skill acquisition taking precedence over other school activities, (e)

a means by which pupil progress is monitored frequently and (f) school resources and energy being diverted from other business when necessary to further fundamental objectives.

Hallinger and Heck (1996) conducted a comprehensive review of school leadership and its effects. They concluded that instructional leadership was the most common conceptualization of school leadership used during the period of their review of empirical research on school leadership effects. A subsequent review of research that focused solely on instructional leadership found that over 125 empirical studies employed the construct between 1980 and 2000 (Hallinger, 2000). Evidence indicated that school principals contributed to school effectiveness and student achievement indirectly and that the principal's role in shaping the vision of the school was the most influential. In addition, evidence indicated that the principal's instructional leadership influenced the quality of school outcomes through the alignment of school structures with the school's mission. Principals acting as instructional leaders were forced to adjust their focus to the needs, opportunities, and constraints imposed by the school context. Although direct effects were found at the elementary school level, some scholars suggested that these results could have been attributed to school size (Heck, Larson, & Marcoulides, 1990) and that direct involvement in teaching and learning through curriculum and instruction work appeared more realistic in elementary level schools and less realistic in larger, more complex secondary schools (Hallinger, 2003).

#### *Instructional Leadership Conceptual Model*

The conceptualization of instructional leadership developed by Hallinger and Murphy (1985) was the most frequently used in empirical investigations (Hallinger & Heck, 1996). It proposed three dimensions for the instructional leadership role of the principal: (a) defining

the school mission, (b) managing the instructional program, and (c) promoting a positive school-learning climate.

*Defining the school mission.* An important dimension of the principal's role as instructional leader is to define and communicate a mission or purpose for the school. Defining this mission involves communicating the vision to the staff and students in such a way that a sense of shared purpose exists, linking together the various activities that take place in classrooms throughout the school. The principal's role in defining the mission involves two functions: *framing the school's goals*, e.g. determining the areas, based on student performance data, and the staff responsibilities for achieving the goals; and *communicating the school's goals*, e.g. communicating the school's important goals to the teachers, parents, and students. Therefore, the principal is concerned with working with the staff to ensure that the school has clear, measurable, time-based goals focused on the academic progress of students. It is also the principal's responsibility to communicate these goals so that they are widely known and supported throughout the school community. The school should have clear, academic goals that staff support and incorporate into their daily practice. In addition, school missions should be clear, visible around the school, and focused on academic development appropriate to the needs of the particular school population. Lastly, the mission should be articulated, actively supported, and modeled by the principal.

*Managing the instructional program.* This dimension involves working with teachers in areas specifically related to curriculum and instruction. It consists of several related job functions. This dimension focuses on the coordination and control of instruction and curriculum. This dimension incorporates three leadership functions: *supervising and evaluating instruction*, e.g. ensuring that school goals are translated into classroom practice;

*coordinating the curriculum*, e.g. ensuring that school curricular objectives are closely aligned with both the content taught in classes and with achievement tests; and *monitoring student progress*, e.g. utilizing test results for setting goals, assessing the curriculum, evaluating instruction, and measuring progress toward school goals. Therefore, the principal must be deeply engaged in stimulating, supervising, and monitoring teaching and learning in the school. The principal must possess expertise in teaching and learning, as well as commitment to the school's improvement. The principal is required to become "hip-deep" in the school's instructional program (Bossert et al., 1982; Cuban, 1984; Edmonds, 1979).

*Promoting a positive school learning climate.* School learning climate refers to the norms and attitudes of the staff and students that influence learning in the school. This dimension consists of primarily indirect activities. The principal communicates expectations for students and teachers through the policies and practices promulgated by the school. Principals can influence student and teacher attitudes through the creation of a reward structure that reinforces academic achievement and productive effort through clear, explicit standards embodying what the school expects from students, through the careful use of school time, and through the selection and implementation of high-quality staff development programs. This dimension includes several functions: *protecting instructional time*, e.g. developing and implementing schoolwide policies that provide teachers with blocks of uninterrupted instructional time; *promoting professional development*, e.g. ensuring that staff development activities are closely linked to school goals and assisting in classroom implementation of the skills learned during staff development programs; *maintaining high visibility*, e.g. being seen in the building and classrooms to have positive effects on students' and teachers' attitudes and behaviors; *providing incentives for teachers*, e.g. setting up a

work structure that rewards and recognizes teachers for their efforts, such as privately expressed praise, public recognition, and formal honors and awards; *developing and enforcing academic standards*, e.g. increasing numbers of students expected to master basic skills prior to entry into the following grade; and *providing incentives for learning*, e.g. rewarding and recognizing student academic achievement and improvement frequently. Therefore, the principal models values and practices that create a climate and support the continuous improvement of teaching and learning. Instructionally effective schools develop a culture of continuous improvement in which rewards are aligned with purposes and practices (Barth, 1986; Glasman, 1984; Hallinger & Murphy, 1986; Purkey & Smith, 1983).

In summary, instructional leadership models that include a blend of supervision, staff development, and curriculum development are needed for schools to improve educational outcomes (Blasé & Blasé, 2000). Empirical studies have confirmed continuing interest in the topic and provide an evolving knowledge base upon which to understand the practice of instructional leadership in schools (Bamburg & Andrews, 1991; Hallinger & Murphy, 1985, 1986; Hallinger, 2005). However, much research has been grounded in elementary schools; the practice of instructional leadership requires substantial adaptation in secondary schools (Hallinger, 2005).

### *Problems with Principals as Instructional Leaders*

Instructional leadership was thought to be a rational model of leadership. It was assumed that schools would improve if principals were able to create clear academic goals, motivate staff and students to work toward those goals, monitor progress, and align teaching and learning activities to achieve the desired academic outcomes. However, as logical as this approach to leadership appeared, the structural conditions that characterized schools made it

difficult to enact over time (Cuban, 1988). Some research focusing on administrative practices in schools found that principals tended to avoid the instructional role (Cuban, 1988). Cuban further highlighted that organizational and environmental constraints placed upon principals may have attributed to the avoidance of this role. March (1978) wondered if principals would be able to fit the heroic model of leading rather than managing or maintaining schools. In many cases, principals had less expertise in the subject area than the teachers whom they supervised (Barth, 1986; Bossert et al., 1982; Cuban, 1988), which made supervision challenging, especially in secondary schools. In addition, there were many factors which interfered with principals getting into the classrooms. Regardless of these factors, principals felt responsible and were held accountable for the instructional leadership within a school. Furthermore, principals who attempted to lead and manage the curriculum and instruction alone found that the schools became overly dependent on their leadership (Lambert, 2002). Barth (1990) questioned whether a single person could lead a school, and he highlighted the conditions that were necessary to create a community of learners. He concluded that principals who exercised effective instructional leadership were those who possessed the capacity to motivate teachers to step beyond the boundaries of their classrooms to transform the workplace into a learning place. Blasé & Blasé (2000) suggested that instructional leadership needed to be designed as part of the school's organizational structure because the role of the instructional leader requires high levels of professional knowledge, skills, and understanding. It was no longer possible for a lone administrator to fulfill all of a school's need for instructional leadership (Lambert, 2002). As a result, instructional leadership was being approached in more collaborative ways.

### *Shared Instructional Leadership*

One administrator can no longer serve as the instructional leader for an entire school without substantial participation from other educators (Hallinger, 2003; Hallinger & Murphy, 1985; Harris, 2005a; Lambert, 2002, 2003; Lashway, 2002; Southworth, 2002; Spillane, Halverson, & Diamond, 2001).

The old model of formal, one-person leadership leaves the substantial talents of teachers largely untapped. Improvements achieved under this model are not easily sustainable; when the principal leaves, promising programs often lose momentum and fade away. As a result of these and other weaknesses, the old model has not met fundamental challenge of providing quality for all students...Instructional leadership must be shared, community undertaking. Leadership is the professional work of everyone in the school. (Lambert, 2002, p. 37)

James Weber (1996) addressed the need for instructional leadership in school regardless of its organizational structure. Whereas earlier discussions of instructional leadership had placed the responsibilities on the principal, Weber suggested that a more collaborative approach was needed. He concluded from his review of research that an instructional leader was needed in schools even if the role did not reside in the principal's domain; "the leaderless-team approach to a school's instructional program has powerful appeal, but a large group of professionals still needs a single point of contact and an active advocate for teaching and learning" (p. 254). Weber emphasized the fact that instructional leadership is necessary regardless of the hierarchical nature of a school's organization.

Several scholars have written about the possible forms of instructional leadership and have attempted to integrate these constructs into a variant they refer to as *shared*



*instructional leadership* (Day, Harris, & Hadfield, 2001; Jackson, 2000; Lambert, 2002; Marks & Printy, 2003; Southworth, 2002). Building shared instructional leadership begins with understanding that learning and leading are rooted in community, and all individuals assume responsibility for the learning of their colleagues (Lambert, 2002). Lambert posited that three assumptions underlie the concept of shared instructional leadership: every member of the school community has the responsibility and ability to assume leadership functions; the way leadership is defined influences the way people participate; and educators yearn to become more purposeful professionals.

#### *Important Features of Shared Instructional Leadership*

In schools with high leadership capacity, learning and instructional leadership become fused into professional practice (Lambert, 2002). Important features that are common to these schools are (a) *skilled participation*, e.g. principal, teachers, parents, and students participate together as mutual learners and leaders in study groups, action research teams, and vertical learning communities; (b) *vision*, e.g. shared vision resulting in program coherence; *inquiry*, e.g. inquiry-based use of information guiding decisions and practice; (c) *collaboration*, e.g. participants share responsibility for and engage in collaborative work across grade levels through reflection, dialogue, and inquiry; (d) *reflection*, e.g. participants consider and reconsider how they do things through journaling, coaching, and dialogue networking; and (e) *student achievement*, e.g. attention focused on closing the gap in achievement among diverse groups of students and includes self-knowledge, social maturity, personal resiliency, and civic development.

These features interact to create the new tasks of shared instructional leadership. They are vital to school improvement, and it is the principal's job to construct a shared vision with

the community, convene conversations, insist on student learning focus, evoke leadership in others, model collaborative practices, and facilitate dialogue that addresses confounding issues of practice (Lambert, 2002). Although their involvement is less important, principals play a crucial role by supporting new approaches, providing logistical support, and offering encouragement to teachers who may have reservations about assuming unfamiliar roles (Lashway, 2002).

#### *Research Related to Shared Instructional Leadership*

The most ambitious attempt to study shared instructional leadership empirically was conducted by Marks and Printy (2003). They conducted a quantitative, non-experimental study that investigated the concept of school leadership. They attempted to measure how leadership affected school performance. Twenty-four nationally selected “restructuring schools” were chosen from elementary school level, middle school level, and high school level. In addition, the relationship of transformational leadership and shared instructional leadership was studied in relation to the quality of teaching and learning. Marks and Printy found that when transformational and shared instructional leadership coexist, the influence on school performance is substantial. Furthermore, they suggested that instructional leadership is needed to complement the tenets of transformational leadership to improve teaching and learning.

#### *Teacher Leaders as Instructional Leaders*

Traditional models of school organizations consisted of hierarchies that concentrated the authority in the hands of one or two administrators. It was suggested that this type of leadership should be replaced with a broader conception that focuses on groups working

together to lead (Murphy & Beck, 1995). In this concept, leadership is still being exercised by individuals in formal positions of authority as well as by individuals outside of these positions (Smylie, Conley, & Marks, 2002). Ultimately, improvements and reforms can be sustained when leadership is distributed and embedded throughout the organization (Rutherford, 2006). Leadership structures that distribute leadership functions throughout the school must rely on the leadership skills of teachers (Gronn, 2000; Harris, 2005a; Spillane et al., 2001). Therefore, in recent times, expert teachers have been called upon to assume leadership functions at the instructional and organizational levels (Frost & Harris, 2003; Harris, 2005b). Some teachers assume informal leadership roles while others are assigned formal positions in the already highly specialized administrative structure of schools (Darling-Hammond, Bullmaster, & Cobb, 1995). Harris (2003) noted that regardless of how teacher leadership is defined, it is important to acknowledge that its foundation is rooted in a distributed perspective of leadership. Therefore, the success of a school in which leadership is distributed across the community is dependent on the development of teacher leaders (Smylie et al., 2002).

Teachers need to assume some of the roles and responsibilities that were previously the domain of the principal (Muijs & Harris, 2003a). “Those persons” occupying leadership roles within the school are considered to be those who “work with others to provide direction and who exert influence on persons and things in order to achieve the school’s goal” (Leithwood & Riehl, 2003, p. 9). In addition, Katzenmeyer and Moller (2001) consider teacher leaders as contributing to a community of teacher learners and leaders as well as influencing others toward improved educational practice. Teacher leaders understand that the major dimensions of learning in schools are as follows: (a) the learning of students, (b)

learning of colleagues, (c) learning of self, and (d) learning of the community (Lambert, 2003). Central to these concepts is the use of influence to provide guidance. It has been determined that teachers describe the role of teacher leaders as “primarily around functions of helping and supporting colleagues to fulfill classroom responsibilities and improved practice” (Smylie & Denny, 1990, p. 244). Rutherford (2006) fused the components of the influential nature of leadership and the acquisition of knowledge to define teacher leadership as “when teachers intentionally transfer knowledge that influences one’s ability to meet educational objectives” (p. 62).

Teacher leaders take responsibility for inquiring about problems, researching possible solutions, answers and inventions, and implement recommendations. Traditionally, curriculum leadership has been viewed as a series of technical tasks establishing objectives, monitoring scope and sequence, choosing textbooks, and selecting appropriate tests with the principal exercising final responsibility for all decisions. Recent work has documented the ability of teachers to make major decisions about content and methods, not only individually in their classrooms, but collectively on a school-wide basis. This must be grounded in teacher autonomy that is endorsed and supported by school leaders (Lashway, 2002).

The formal leadership roles that teacher leaders assume in the instructional context of a school community have both management and pedagogical responsibilities (Muijs & Harris, 2006). This teacher leader is an important source of instructional expertise as he or she influences curriculum, teaching, and learning (Harris, 2005b; Muijs & Harris, 2003a). The instructional teacher leader incorporates three main areas of activity: (a) the leadership of other teachers through coaching, mentoring, and leading working groups; (b) the leadership of developmental tasks that are central to improved learning and teaching; and (c)

the leadership of pedagogy through the development and modeling of effective forms of teaching (Harris & Muijs, 2004). A review of the literature suggests that the following positions are included under this definition: mentor, coach, subject coordinator, department head, curriculum specialist, or instructional specialist (Berry & Ginsburg, 1990; Darling-Hammond et al., 1995; Harris, 2005b; Muijs & Harris, 2003b, 2006). Within the school, the instructional teacher leader performs the following functions: coaching and mentoring teachers; building and shaping curriculum knowledge; leading in-service training and staff development activities; providing curriculum and instructional resources; and engaging other teachers in collaborative planning, reflection, and research (Berry & Ginsburg, 1990; Darling-Hammond et al., 1995; Frost & Harris, 2003; Harris & Muijs, 2003, 2004; Katzenmeyer & Moller, 2001; Lambert, 2003; Rutherford, 2006).

### *Section Summary*

This section reviewed the evolution of the instructional leadership concept. Conceptions of instructional leadership highlight the importance of school leadership that includes both administrators and teacher leaders. Originally, instructional leadership models emerged in the 1980s from early research on effective schools which indicated that effective schools exhibited strong, directive leadership focusing on curriculum and instruction. These conclusions caused instructional leadership to become more rooted in the role of school administrators. The emergence of newer leadership concepts led to dissatisfaction with an administrative-centered, instructional leadership model that was attributing too much power and center of expertise to one or few people. As a result, instructional leadership was approached in more collaborative ways. Current definitions of instructional leadership involve teacher leaders assuming control over curriculum and instruction and place an

emphasis on data and a more complex view of professional development. The evolution of instructional leadership emphasizes the need for a holistic view of school leadership that embraces leadership of student instruction, the formal organization, and the total school community. Sergiovanni (1994) considered that in a true school community, relationships are based on shared values and norms, which in turn, have a positive influence on the school environment.

### School Climate

Like leadership, school climate remains an elusive but important component of education. It provides a framework within which principals, teachers, and students function and is considered to be one of the most important factors in school effectiveness (Purkey & Smith, 1983). School climate literature and research evolved from organizational climate research. Therefore, in this section, the origins of climate are discussed first. Next, school climate research is considered, followed by the discussion of how school climate is assessed.

#### *Origins of Climate*

The concept of organizational climate originated in the late 1950s as social scientists studied variations in work environments. Researchers interested in educational organizations were pioneers in the efforts to define and measure dimensions of organizational climate, while the usefulness of the concept was recognized by scholars of business organizations (Tagiuri & Litwin, 1968). Climate was initially used as a general concept to express the enduring quality of organizational life. Tagiuri explained that “a particular configuration of enduring characteristics of the ecology, milieu, social system, and culture would constitute a climate, as much as a particular configuration of personal characteristics constitute a

personality” (p. 23). One of the earliest definitions of organizational climate that gained wide acceptance described climate as “the set of characteristics that describe an organization and that (a) distinguish the organization from other organizations, (b) are relatively enduring over time, and (c) influence the behavior of people in the organization” (Forehand & Gilmer, 1964, p. 362). However, some scholars considered the widely used definition deficient in terms of participant perceptions. Tagiuri and Litwin (1968) added that climate is interpreted by each participant in ways which impact their attitudes and motivations, thus, suggesting that climate can be affected by individual perceptions. Organizational climate is the study of “perceptions that individuals have of various aspects of the environment in the organization” (Owens, 1987, p. 168). Perceptual measures are used to assess the various aspects of organizational climate, and even though some believe that perception is based on subjectivity, whatever people in the organization perceive as their experience is the reality to be described (Anderson, 1982; Owens, 1987).

The systematic study of school climate grew out of organizational research and studies focusing on school effectiveness (Anderson, 1982; Miller & Fredericks, 1990; Purkey & Smith, 1983). Results of these studies suggested that like individual people, schools have their own characteristic personalities or climate. Although each climate is unique to an individual school, researchers and scholars have had difficulty agreeing on an exact definition or meaning except for the fact that it reflects a subjective experience in school (Cohen, 2006). There are complex sets of elements that make up school climate, yet there is not one commonly accepted list of the essential dimensions. While everyone in a school works within the same school climate, perceptions about the climate will vary from individual to individual (Lindelow et al., 1989). School climate includes factors such as (a)

communication patterns, (b) norms about what is appropriate behavior and how things should be done, (c) role relationships and role perceptions, (d) patterns of influence and accommodations, and (e) rewards and sanctions (Fox et al., 1979; Welsh, 2000). Hoy and Miskel (1996) synthesized these various perspectives and defined school climate as “a relatively enduring quality of school environment that is experienced by participants, affects their behaviors, and is based on their collective perceptions of behaviors in school” (p. 141).

School climate is the feel an individual gets from his or her experience within a school’s social system. This feel is the individual’s perceptions of how school personnel and students behave and interact. These behaviors are determined by underlying norms which dictate the interactions that are appropriate. Every organization develops norms of behaviors that dictate how members of the organization are expected to behave. Significant organizational properties are controlled by persons in leadership positions; therefore, leadership style plays an influential role in shaping a school’s climate (Forehand & Gilmer, 1964). A school’s characteristics are a reflection of the educational values of its leader:

Leadership style is determined by deep-seated values and beliefs about how people learn. Leaders may call them what they wish...but ultimately, their deep-seated values and beliefs are mirrored throughout the school. One can know the essence of the school leader, then, by looking at the tone and educational environment of the school. (Goldman, 1998, p. 21)

Sergiovanni (1995) suggested that favorable school climates combined with quality educational leadership are essential keys to sustain school improvement and enhance school effectiveness.



### *School Climate Research*

School climate has been researched for many years and continues to be examined and redefined because of its significant influences on educational outcomes. School climate has been a component of the reform movement in education as evidenced in the early model of effective schools. Edmonds (1979) posited that a school climate composed of strong administrative leadership, high performance expectations, a safe and orderly environment, an emphasis on basic skills, and a system of monitoring student progress promoted high academic achievement. Since then, there has been a growing body of research that supports the importance of school climate. In fact, school climate has a profound impact on individual experience. Positive school climate is a critical dimension linked to teaching and learning and can enhance staff performance, promote higher morale, and improve student achievement (Freiberg, 1998; Heck, 2000). Negative or closed school climates contribute to low innovation, low job satisfaction, alienation, lack of creativity, complacency, conformity, and frustration (Welsh, 2000). Effective leadership is essential in schools because the climate can be shaped by the principal's actions (Sergiovanni & Starratt, 1998). In fact, researchers found that teachers' views of teacher-principal interactions were related to school climate (Bulach, Boothe, & Pickett, 1998). Furthermore, a principal's instructional leadership behaviors influence the climate and several studies have established links between instructional leadership and school climate (Bossert et al., 1982; Hallinger & Murphy, 1986; Hoy, Tarter, & Kottkamp, 1991; Sergiovanni, 1995).

### *Assessing School Climate*

Many researchers have accumulated several decades of experience in the measurement of organizational climate. Instruments have been developed to measure climate

in a variety of organizational settings (Woodman & King, 1978). Assessing organizational climate by means of participants' perceptions grew to be an important method of measurement in schools because perceptions are based upon experiences that are both extensive and more involved than outside observations (Forehand & Gilmer, 1964). Therefore, most of the school climate instruments focused on measuring the interactions among school staff members and between the staff and the administrator (Lindelow et al., 1989).

#### *Organizational Climate Description Questionnaire*

One of the earliest school climate assessment instruments, *Organization Climate Description Questionnaire* (OCDQ) was developed in 1962 by Andrew Halpin and Don Croft. The OCDQ focused on the social interactions occurring between teachers and the principal. Halpin and Croft collected and examined data for 71 elementary schools in the development of their instrument. The items on the instrument tapped into the characteristics of the faculty as a group and the characteristics of the principal as a leader. The researchers discovered that the organizational profiles of their 71 schools could be arrayed along a continuum from open at one end to closed at the other end. In an open climate, the behaviors of the teachers and principal are considered authentic in contrast to the closed climate in which the behaviors are described as the least genuine. The OCDQ has become the most frequently used instrument for measuring school climate (Lindelow et al., 1989).

Although the OCDQ was widely used, there were several limitations. A major weakness was that it was designed to assess teachers' perceptions at all school levels; it did not distinguish between the levels. Hoy and Sabo (1998) revised the OCDQ and developed three separate versions to measure teachers and administrators' perceptions at the elementary,

middle, and secondary school levels. Another weakness was that the original OCDQ failed to specify meaningful gradations in the climate ratings of schools that fell between open and closed. In place of Halpin and Croft's polar open-closed classification, Hoy and Sabo's (1998) revised OCDQ utilized four contrasting types of school climate based on principal and teacher responses. They termed these as (a) open, (b) engaged, (c) disengaged, and (d) closed.

The final version of the climate instrument specifically designed for middle schools, OCDQ-RM, contains 50 items that define six factors of the school climate. It measures three aspects of teacher behavior: (a) collegial, (b) committed, and (c) disengaged. In addition, it measures three aspects of principal behavior: (a) supportive, (b) directive, and (c) restrictive,. These six aspects of interactions define two openness dimensions of middle school climate that refer to the openness of teacher-teacher relations and the openness of teacher-principal relations. The two general dimensions of climate openness define four climate types: (a) open, (b) engaged, (c) disengaged, and (d) closed.

In addition to the six specific dimensions, two underlying general aspects of school climate have been identified. The three specific dimensions of teacher behaviors and the three specific dimensions of principal behaviors define two general features of climate: (a) teacher openness behavior and (b) principal openness behavior.

*Teacher openness behavior.* This refers to teachers' interactions that are meaningful and tolerant (low disengagement), that help students succeed (high commitment), and that are professional, accepting, and mutually respectful (high collegial relations).

*Principal openness behavior.* This is marked by a helpful concern for the ideas of teachers and constructive support (high supportiveness), freedom and encouragement for

teachers to experiment and act independently (low directiveness), and structuring the routine aspects of the job so that they do not interfere with teaching (low restrictiveness).

### *The Issue of Individual-Level or School-Level Property of School Climate*

An important issue in school climate research involves whether climate is a property of schools or a subjective perception of the school by its participants (Sirotnik, 1980). Some researchers have concurred that climate is a property of the school or that the unit of theory for climate is the school (Anderson, 1982). In this perspective, each participant in the school experiences the school's climate through individual interactions with the school. An alternative view of climate is that it is a psychological property of the individuals within each organization. Miller and Fredericks (1990) suggested that conceptualizing school climate as an individual level property is the stronger theoretical position. This view of school climate has been acknowledged by other researchers (Dixon, Johnson, & Toman, 1991) and is supported by analyses of student school climate ratings (Mok & McDonald, 1994). Mok and McDonald found very low consistency of students within schools, indicating that student scores were an individual-level construct rather than a school-level construct.

Schneider and Reichers (1983) reviewed the literature on the etiology of climates. They advanced the theoretical explanation of the formation of climates based on symbolic interactions. They contended that importance should be placed on meanings that arise from the interactions between people. Therefore, they reasoned that various climates may exist within the same organization as distinct entities due to the participants' interactions with each other. Researchers studying organizational climate generally agree that the unit of theory is not the organization but the individual (James, 1982). They posited that there is no property of the organization that could be called its climate; rather, the climate is different for each

participant in the organization based on individual characteristics and perceptions of the organization. In the individual-level theory, agreement is a construct assessing the extent to which individuals within an organization have a shared vision of climate. In this theory, differences within schools are not seen as error but as reflections of different perceptions of the schools. For the purposes of the present study, climate is viewed from the individual-level perspective.

### *Section Summary*

Although school climate literature and research evolved from organizational climate research, there still exists a lack of consensus about the specific characteristics that define school climate and if it should be considered at the individual level or at the collective level. For the purposes of the present study, the individual-level theory was used to support the collection and calculation of individual climate scores. Researchers have concluded that there is significant value in assessing the interactions of the individuals within a school. The OCDQ-RM was developed specifically to assess the principal openness behaviors and teacher openness behaviors within a middle school to determine the climate.

### *Related Studies*

#### *Research Related to Leadership Style, Principals, and School Climate*

Studies conducted in elementary (Benda & Wright, 2002; Patrick, 1995; Sellars, 1984), middle (Hudson, 1983), and secondary schools (Patrick, 1995; Sellars, 1984) have revealed a significant correlation between leadership style and school climate, supporting the theory that leadership style impacts school climate. All of these researchers recommended further research in this area because the way leaders behave has a direct impact on the way

teachers feel. They also recommended determining which specific behaviors create a more positive or open school climate.

Mendel, Watson, and MacGregor (2002) examined elementary school teachers' perceptions of the specific leadership behaviors of their principal as compared to their perceptions of school climate. Teachers who perceived their principals as utilizing a collaborative leadership style—one in which administrators and teachers routinely work together to promote effective teaching and learning—rated their schools as having more positive school climate than did teachers who perceived their principals as using directive or non-directive style of leadership.

#### *Research Related to Transformational Leadership, Principals, and School Climate*

Kaye Pepper (2002) conducted a qualitative study utilizing an autoethnographical approach that incorporated the use of her personal journals in the data collection. As a new, inexperienced elementary school principal, she attempted to lead with a firm hand. Pepper described her experiences as she witnessed the negative effects that an authoritarian leadership style had on school climate. As she made the change to utilizing a more transformational style of leadership, she came to realize that this style had a more positive effect on the learning and working environment within her school.

Empirical studies have also found that transformational leadership behaviors of schools' principals positively impact school climate. In one study, Chirichello (1999), who used both qualitative and quantitative methods, found that elementary school teachers preferred principals to exhibit a more transformational leadership style. Data analysis also revealed a positive correlation between transformational leadership behaviors of principals and school climate. Specifically, transformational behaviors were associated with a more

open school environment. Furthermore, Chirichello offered suggestions for ways in which transformational leadership can facilitate change and for implementing a more collective design for leadership within schools.

In another study, Blatt (2002) examined the relationship between transformational leadership, transactional leadership, laissez-faire leadership, and school climate as perceived by teachers in secondary vocational schools. A one-shot case study approach was used in which a single group was investigated only once. The sample of 212 teachers was randomly selected. A Pearson product moment correlation coefficient was performed to examine the relationship between teachers' perceptions of the leadership style of the administrative directors and their perceptions of school climate. Data analysis identified a statistically significant positive relationship between administrators who exhibited transformational leadership behaviors and school climate, whereas there was a statistically significant negative relationship between transactional leadership and school climate. A limitation of the study was that the findings were only generalizable to secondary schools; therefore, Blatt suggested that the study be replicated in different school settings such as elementary and middle school levels.

#### *Research Related to Transformational Leadership and Teacher Leaders*

There is a substantial body of literature that delineates teacher leadership characteristics that are consistent with transformational qualities: experimenting with new approaches; modeling of learning and best practices; engaging in problem-solving at the school level; providing professional growth activities for colleagues; cultivating desired dispositions in colleagues by engaging in reflective inquiry; mentoring and coaching other teachers; and building trust, rapport, and confidence in others (Berry & Ginsburg, 1990;

Darling-Hammond, 1998; Harris & Muijs, 2003; Sherrill, 1999). Despite attempts to describe leadership through the transformational lens, there has been a lack of empirical studies that place formal teacher leadership within the framework of current leadership theories or reflect how these teachers engage with their colleagues to impact the organizational culture (Beauchum & Dentith, 2004; Pounder, 2006; Smylie & Denny, 1990).

Crowther and Olsen (1997) examined leadership approaches of 12 highly successful teachers and two paraprofessionals working in socioeconomically disadvantaged school communities, nine of whom were employed in primary schools and five in secondary schools. Crowther and Olsen conducted a 6-week inquiry that included critical incident strategy, on-site interviews, and focus group sessions. A holistic profile was prepared for each participant, descriptive data were quantified and categorized to generate conceptualizations of educational strategies and leadership, and tentative research findings were tested with the participants to ascertain levels of perceived credibility. Several essential characteristics of leadership were illustrated by teacher leaders: articulates clear views of a better world, models trust and sincerity, confronts structural barriers, builds networks of support, and nurtures a culture of success. Crowther and Olsen determined that teacher leaders were perceived as exhibiting leadership qualities that were broadly transformational in nature. Although a direct comparison was not made to the leadership qualities of administrators, Crowther and Olsen indicated a need to investigate this area further:

Administrators in the research themselves suggested that political and managerial aspects of their work militate strongly against their being able to assume transformational and educative leadership functions that some teachers in their schools were able to realize. With the prospect of increasing managerialism and



corporatism in school administration, the potential of these theoretical approaches in the work of managers on the one hand, and teachers on the other, would seem to warrant ongoing thought and inquiry. (p.13)

Wetig (2002) conducted a case study in which she examined 10 teachers who assumed leadership functions outside of the classroom, including instructional facilitation, mentoring, research, collaboration, and problem-solving. She investigated how these teacher leaders defined leadership, described the leadership characteristics needed to serve the position, identified necessary professional development opportunities, and classified benefits and challenges of the role. Results of initial and follow-up interviews revealed that these teachers identified common language in describing leadership characteristics needed to fulfill their positions. Their involvement in the leadership role gave them a better understanding of persons in leadership positions and altered their relationship with professional colleagues. Overall, Wetig found that teacher leaders assuming leadership roles outside of the classroom predominantly viewed themselves as transformational leaders.

#### *Research Related to Transformational Leadership, Teacher Leaders, and School Climate*

Lucas and Valentine (2002) conducted quantitative research to develop an understanding of the relationships among principal transformational leadership, teacher leadership-team transformational leadership, and school culture at the middle school level. Twelve middle schools, with 475 faculty members and 47 school leadership team members, located across the state of Missouri representing urban, suburban, and rural settings, comprised the sample. Correlational and regression statistics were utilized to analyze the data. Results indicated that there was a significant relationship between principal transformational leadership behaviors and school culture. Principals who led through

transformational behaviors were better able to understand the school's unique culture and create a more open environment. These results are consistent with those studies dealing with administrative leaders. In addition, Lucas and Valentine examined the relationship between teacher leader teams, transformational leadership, and school culture. They determined that "teacher leaders are important in fostering commitment to the goals of the school, providing individualized support and intellectual stimulation to teachers, and holding high expectations for the performance of their peers" (p. 24). Furthermore, teacher leadership teams that embody and put into practice transformational behaviors created school cultures that engendered purpose, commitment, and creativity. Ultimately, teacher leadership teams that encompass transformational qualities positively influenced school culture. Consequently, Lucas and Valentine postulated that principals and teacher leaders may have different roles to play in the exercise of transformational leadership and in shaping the climate of a school. Therefore, they suggested that further research is needed to determine the specific transformational behaviors teacher leaders should exhibit in relation to the school administrators.

#### *Research Related to Disagreement or Agreement in Perceptions and School Climate*

Pashiardis (2001) postulated that the effectiveness of leaders is dependent upon how others view them as leaders and how they view themselves. He conducted a study in one secondary school in Cyprus in which he utilized a mixed methods approach. He examined the perceptions of teachers with respect to principals' leadership style. The study also included the principals' perceptions of themselves regarding their own leadership styles, how their teachers perceived their principal, and compared data for discrepancies between the two groups. The results indicated that there was some agreement and some disagreement between

the teachers and the principal regarding the principal's leadership style. Principals and teachers agreed on the areas of school climate, curriculum development, student management, and relations with parents and the community; however, they disagreed about personnel management, professional development, and in-service training. Consequently, Pashaiardis posited that discrepancies in perceptions would have a negative effect on the principal's effectiveness and the school environment; however, empirical testing was not conducted to investigate the claim.

Booker (2003) conducted a correlational study in which she sampled 36 middle schools throughout the southwestern and middle regions of Tennessee. Thirty-six principals and 1080 teachers participated in the study. The study examined teachers' and principals' perceptions of leadership styles and the relation the styles have to school climate. Leadership variables and school climate variables were examined individually and collectively, comparing principals' perceptions to teachers' perceptions. Each principal's type of leadership style score was correlated with scores representing teachers' perceptions of that principal's leadership style. A separate analysis was then performed using principals' school climate scores and the school climate scores of teachers individually and collectively. Findings indicated that there were some significant relationships among measures of teachers' perceptions of leadership styles and principals' perceptions of school climate. However, a significant relationship did not exist in relation to teachers' perceptions of leadership style and teachers' perceptions of school climate. In addition, results indicated that there was a discrepancy between the way in which teachers and principals perceived school climate. Booker found that there was no significant relationship between the leadership style as perceived by teachers and principals' perceptions; however, the scatter graph indicated

that the principals perceived themselves as more transformational than the teachers perceived them. Booker suggested that future researchers should use disaggregated scores from the instruments because it “could produce relevant data not found through the study of the grand mean generated in this study” (p. 78).

Kelley, Thornton, and Daugherty (2005) compared the relationships between selected dimensions of leadership and measures of school climate in 31 elementary schools. In addition, principals’ perceptions of their leadership styles were compared with teachers’ perceptions of their principals’ leadership styles. Pearson product-moment correlations were calculated to determine the relationships between the variables. The researchers found that teachers’ perceptions of their principals’ effectiveness were positively related to school climate. When the teachers perceived their principal varied his or her leadership style, they rated the school climate lower. Moreover, Kelley et al. (2005) found that there was a discrepancy between the principals’ self-ratings and the teachers’ perception of their principals’ leadership style. However, these discrepancies were not analyzed in relation to the school climate variables. Therefore, it was not known how these discrepancies in perceptions affected school climate. Other limitations of the study include small sample size and selection procedures. All schools used in the study were small schools in rural settings, which could have “skewed some of the findings” (p. 210).

There are a limited number of empirical studies that focus on how the disagreement or agreement found between leaders’ perceptions of leadership style and teachers’ perceptions of the leaders’ style affect school climate. Chaffee (1981) conducted a study to explore the relationship between school climate and the agreement between the principal’s and teachers’ perceptions of the leadership style of the principal in elementary schools. Data

were collected from 32 principals and 510 teachers in 32 elementary schools in Jefferson County, Colorado. The school data were analyzed using a chi-square test, and Cramer's statistics was used to measure the magnitude of the relationships found. Findings indicated that principals and teachers did not agree on the principal's leadership style in 56.7% of the schools. This finding was statistically significant at the .01 level and the magnitude of association was strong at .70. Furthermore, results revealed that a more open school climate was associated with schools in which there was agreement between the perceptions of the principals and teachers in regard to leadership style. The agreement was statically significant at the .01 level, and the association was moderately strong at .55. Chaffee recommended that his study be replicated in other districts and at other school levels, such as middle and high schools.

A replication of Chaffee's study was conducted by Stueven (1985) in the same public school system in which a chi-square test and a simple regression were performed on data collected from 25 principals and 246 teachers from 25 elementary schools. Stueven's findings did not fully support Chaffe's results that school climate was more positive in schools where the principals and teachers agreed on the leadership style of the principals. However, when teachers were viewed individually, the agreement that existed between the way they perceived the leadership style of the principal and the principal's self-identified leadership style related positively to the teachers' rating of school climate. Like Chaffee, Stueven suggested that the study be replicated at other school levels.

### *Section Summary*

A number of researchers have investigated the relationship between leadership style and school climate. These studies primarily focused on the administrative levels of leadership

within schools. Results indicated that teachers associated a more open school climate with principals who exhibited transformational characteristics. In addition, some studies found that a more positive or open school climate was associated in schools where there was agreement between the perceptions of the principals and teachers in regard to leadership style. Although there has been some literature dealing with the transformational qualities of teacher leadership, there has been a lack of research in the area of teacher leadership and school climate.

### Chapter Summary

Much of the literature and research dealing with leadership style and school climate concentrated in the area of administrative personnel. It has been established that teachers perceive open climates in schools where the principal exhibits transformational leadership behaviors. However, principals have been assigned increased managerial responsibilities, which tend to be more transactional in nature, and leadership is now being distributed across the school community. New leadership structures that distribute leadership functions throughout the school rely heavily on the leadership skills of teachers. Teacher leaders have emerged in formal instructional leadership positions within the school community; however, increasing expectations attached to these new roles can be confusing, demanding, and overwhelming to instructional leaders, their colleagues, and their administrators. The literature supports a need to investigate the differences in leadership styles of instructional leaders and principals as measured by the perceptions of the teachers. In addition, it is important to investigate how the teachers' perceptions of the leadership styles of principals and instructional leaders affect perceptions of the school climate.

## CHAPTER 3:

### METHODOLOGY

This study examined teachers' perceptions of the leadership styles of middle school principals and instructional leaders and the relationship of these teachers' perceptions to their perceptions of the teacher behavior and principal behavior variables of school climate. In addition, the study examined how teachers' perceptions of the teacher behavior and principal behavior variables of school climate were affected by the type of agreement found between the teachers' perceptions of the transformational leadership style of principals and instructional leaders and the self-perceptions of both types of school leaders.

This chapter presents the research methodology used to answer the research questions. First, the research questions and hypotheses are reviewed. Next, a description of the setting, subjects, and sampling procedures is presented, followed by an explanation of the research design. Instrumentation, data collection procedures, and data analysis are then described. Lastly, ethical considerations conclude the chapter.

#### Research Questions and Hypotheses

##### *Research Questions*

The following research questions have been developed to determine the difference between the leadership styles of principals and instructional leaders and to investigate their relationship to school climate variables:

1. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders differ?

2. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the teacher behavior variable of school climate?
3. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the principal behavior variable of school climate?
4. Does the type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and principals' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate?
5. Does the type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and instructional leaders' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate?

### *Research Hypotheses*

Based on the relevant literature, theories, and studies reviewed in the previous chapter, the researcher expected to find the following:

- H<sub>1</sub>. Teachers' perceptions of leadership styles (transformational, transactional, and passive) differ between principals and instructional leaders.
- H<sub>2</sub>. Teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the teacher behavior variable of school climate.



- H<sub>3</sub>. Teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the principal behavior variable of school climate.
- H<sub>4</sub>. The type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and principals' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate.
- H<sub>5</sub>. The type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and instructional leaders' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate.

### Setting, Sample, and Sampling Procedures

#### *Setting*

The state classifies school districts in district reference groups (DRGs), defined as districts whose students' families are similar in education, income, occupation and need, and that have roughly similar enrollment (Connecticut Voices for Children, 2006) so that the state can make comparisons among these schools. Connecticut is comprised of nine DRGs which are labeled A-I. The most affluent and lowest need districts, as measured by these indicators, are grouped in DRG A, whereas the least affluent and highest need districts are grouped in DRG I. The participants in this study were drawn from DRGs that were characterized as having the following: (a) 5.2% of the student population are eligible to receive free and reduced lunch; (b) 6.6% of the students' families speak a language other than English at home; (c) total student enrollment falls between 3,000-5,000 per district; and (d) the average

yearly median family income falls between \$80,000-90,000 (Connecticut State Department of Education, n.d.)

### *Sampling Procedures*

The researcher attempted to select middle schools representative from all DRGs through a random stratified approach. For the purpose of this study, middle schools were defined as schools with any combination of Grades 5-8. There were 170 identified middle schools. These schools were clustered into DRGs, and a table of random numbers (Fraenkel & Wallen, 2003) was utilized to select schools from each DRG. School principals from these selected schools were invited to participate in the study; however, using a random stratified sample of schools was not possible because not enough principals from each DRG were willing to participate in the study. Then, a brief description and invitation to participate in the study was placed in the June issue of the Connecticut Association of School (CAS) Bulletin and online on the CAS website to elicit interest. Finally, the researcher contacted all middle school principals via email and phone. As a result, participants for the present study were drawn from seven middle schools in Connecticut from the same or similar DRG. A sample from the same or similar DRG increased the likelihood that the groups being compared were similar. After principals granted permission for the study to be conducted, they identified all instructional leaders. Then, the instructional leader was selected based on consent. In cases in which the principal identified more than one instructional leader, only one giving informed consent participated from each school. Finally, the teachers in each school were asked to participate.

### *Research Sample*

The participants were a *sample of convenience* selected to suit the purpose of this study. The research sample consisted of seven principals, seven instructional leaders, and 114 teachers (ranging from 7 to 36 per school) from middle schools in DRGs B and C. According to the schools' Strategic School Profiles (Connecticut State Department of Education, n.d.), the subjects shared demographic characteristics similar to those of the general population. Demographic characteristics for each participant included the following: a) gender, (b) level of education, (c) years of experience, (d) years of experience in the current district, and (e) frequency interaction with the instructional leader (for teachers only).

#### *Principal Participants*

The sample consisted of seven principals. Four of the 7 principals were males and three were female. Fifty-seven percent of the sample of principals responded that their highest level of education was a sixth year certificate, whereas 43% of the principals reported that they received a doctoral degree. Eighty-six percent of the principals had 6-15 years of classroom experience, whereas 57% reported 6-15 years of experience in administration.

#### *Instructional Leader Participants*

The sample consisted of seven instructional leaders. Two of the 7 instructional leaders were males and five were female. Seventy-one percent of the instructional leaders reported that their highest level of education was a masters degree. Seventy-one percent of the instructional leaders had been teaching between 6-15 years, whereas 27% had been in the profession more than 16 years. In addition, 86% of the instructional leaders had been in their role an instructional leader between 1-5 years.

### *Teacher Participants*

The sample consisted of 114 teachers. See Table 1 for teacher demographics.

Table 1

<i>Demographics of Teachers</i>		
	N	%
Gender		
Male	32	28
Female	82	72
Total	114	100
Level of Education		
Bachelors	16	14
Masters	47	41
Sixth Year Professional Diploma	26	23
Doctorate	0	0
Total	114	100
Years of Experience		
1 -5 Years	22	19
6 – 15 Years	47	41
16+ Years	45	40
Total	114	100
Years of Experience in the District		
1 -5 Years	35	31
6 – 15 Years	47	41

Table 1 (continued).

	N	%
16+ Years	32	28
Total	114	100
Interaction Frequency with Instructional Leader		
Never	7	6
At Least Once a Year	7	6
At Least Once a Marking Period	10	9
At Least Once a Month	41	36
At Least Once a Week	49	43
Total	114	100

### Research Design

A combination of causal-comparative and correlational designs was utilized to investigate the research questions. These designs are useful in studying problems or phenomenon in education. A casual-comparative research design was most appropriate to explain the educational phenomenon in which the independent variables could not be manipulated (Gall, Gall, & Borg, 2003). The groups, principals and instructional leaders, were considered fixed and preexisting; thus, it was not be possible to manipulate these variables (Issac & Michael, 1997). This design allowed comparisons to be made between teachers' perceptions of principals and instructional leaders on selected dependent variables. This design also allowed comparisons to be made between the level of agreement in self-perceptions and teachers' perceptions of the leadership styles of the school leaders and

teachers' perceptions of the teacher and principal behaviors of school climate. In addition, a correlational design was most appropriate to analyze the relationships among the variables in this study (Gall et al., 2003). Specifically, this design allowed the researcher to explore the relationship between teachers' perceptions of the leadership styles of principals and instructional leaders and their perceptions of teacher and principal behavior variables of school climate.

### Instrumentation

Two instruments were used in this study. The *Multifactor Leadership Questionnaire-5X* (MLQ-5X) assessed the leadership styles of the principals and instructional leaders based on the perceptions of the teachers with whom they work and their own perceptions of their leadership styles. The *Organizational Climate Description Questionnaire-RM* (OCDQ-RM) was administered to the teachers within a given school to assess their perceptions of the organizational climate.

#### *Multifactor Leadership Questionnaire-5X*

In response to Burns's definition of transformational leadership, Bass developed the *Multifactor Leadership Questionnaire* (MLQ) in 1985, to measure both transformational and transactional leadership styles. He intended to investigate the nature between the relationship of the styles, behaviors, and their effectiveness. The MLQ was conceptually developed and empirically validated to reflect the complementary dimensions of transformational and transactional leadership with subscales to further differentiate the behaviors of leaders. It has been used in empirical research studies by varied organizations, such as the military, business, government, educational systems, and non-profit organizations. The MLQ-5X has

been revised and refined several times and is now known as the primary quantitative instrument to measure the transformational leadership construct (Den Hartog et al., 1997).

The model was originally based on preliminary results obtained by survey Army officers. They were asked to rate their superiors using the MLQ. The development of the MLQ was based on Bass's six-factor leadership model. These factors included three transformational, two transactional, and a laissez-faire or completely passive component. Although Bass demonstrated that "transformational leadership is a useful concept which can be operationalized in the context of organizations, there are several problems which make careful examination of the results obtained with the MLQ necessary" (Den Hartog, Van Muijen, Koopman, 1997, p. 23). One problem that arose concerning the original *MLQ* was that the components of transformational leadership could not be distinguished empirically. Other problems included item wording, lack of discriminant validity among leadership factors, and the incorporation of behaviors and attributes in the same scale. Some differences reported in prior research were attributed to the type of analyses employed, poor scale construction, restricted sampling, and varying interpretations of what constituted transformational leadership behaviors (Avolio et al., 1999). Along with testing the six-factor model in a broader and more diverse sample of respondents, Bass was also interested in "examining whether a revised version of the MLQ would produce a more stable and replicable factor structure (Avolio et al., 1999, p. 442).

The MLQ-5X underwent many transformations to address the above problems. It was revised to expand the dimensions of leadership since prior leadership research concentrated on identifying and measuring behaviors that fell into a very limited range (Bass & Avolio, 1995). The MLQ-5X instrument was developed from several sources, such as the MLQ 5R,

the MLQ Form 10, and new items based on charismatic leadership. The components of the MLQ-5X had been under investigation, and subsequently, substantial amounts of empirical research support the validity of the MLQ-5X for transformational and transactional leadership constructs. There is evidence of content and construct validity for the revised MLQ-5X. Bass and Avolio included recommendations from six scholars in the leadership field while developing the 5X version. They examined the construct validity of a broader range of leadership styles using the most commonly employed measure of transformational and transactional leadership. In addition, the leadership scales and subscales have demonstrated good to excellent internal consistency, with alpha coefficients above the .80 level. The revised instrument measured a wider and more detailed range of leadership factors, which is likely “to increase the chances of tapping into the actual range of leadership styles that are exhibited across different cultures and organizational settings” (Avolio, et al., 1999, p. 460).

The MLQ-5X is a 45-item instrument using the 5-point Likert-type scale, ranging from very rarely or never to very frequently, if not always. The MLQ-5X measures a full range of leadership behaviors as perceived by the leader and the rater. The leadership scales are measured: (a) transformational leadership, (b) transactional leadership, and (c) passive leadership. Three additional scales, extra effort, effectiveness, and satisfaction, were added to this instrument; however, these additional scales were not used in this study.

### *Transformational Leadership*

Transformational leaders move followers beyond immediate self-interests, raise their need levels and energize them, and promote positive changes in individuals and entire organizations. Transformational leadership is measured through five subscales: (a) idealized



influences (attributed), (b) idealized influence (behavior), (c) inspirational motivation, (d) intellectual stimulation, and (e) individual consideration. *Idealized influence* arouses followers to feel a powerful identification and strong emotion toward the leader.

*Inspirational motivation* entails modeling high values as an example and clearly communicating a common inspiring vision so that followers desire to become part of the leader's team. *Intellectual stimulation* is a behavior that encourages followers to view problems from differing perspectives with new increased awareness. *Individualized consideration* identifies the leader as a coach to provide support and encouragement for specific followers. Each subscale consists of four questions; combining the average of each subscale creates a grand mean score for transformational leadership.

#### *Transactional Leadership*

Transactional leaders seek to motivate followers by appealing to their own self-interests. Transactional leadership is measured through two subscales: (a) contingent reward and (b) management-by-exception (active). *Contingent Reward* is the extent to which the leader engages in transaction of reward for performance. *Management-by-exception (active)* is the extent to which the leader arranges to actively monitor deviances from standards, mistakes, and errors in the follower's assignments and to take corrective action as necessary. Each of the subscales consists of four questions; combining the average of each subscale creates a grand mean score for transactional leadership.

#### *Passive Leadership*

Passive leaders avoid accepting responsibilities, are absent when needed, fail to follow up requests for assistance, and resist expressing their views on important issues. Passive leadership is measured through two subscales: (a) management-by-exception

(passive) and (b) laissez-faire. *Management-by-exception (passive)* is the extent to which the leader waits passively for deviances, mistakes, and errors to occur before taking corrective action. *Laissez-faire* is the extent to which the leader is characterized by avoidance or absence. Each of the subscales consists of four questions; combining the average of each subscale creates a grand mean score for passive leadership.

### *Organizational Climate Description Questionnaire-RM*

Based on the concept of open to closed climate (Halpin, 1966), Hoy and Sabo (1998) developed the *Organizational Climate Description Questionnaire-RM* (OCDQ-RM) specifically for middle schools. They used the OCDQ-RE and OCDQ-RS, which were revised from Halpin and Croft's (1963) OCDQ, to assess the climates of elementary and secondary schools. Seventy-two Likert items were used in the preliminary version of the instrument. A pilot study was conducted to examine the factor structure of the new instrument. A six-factor solution emerged as the best solution, and 24 of the 72 items were eliminated. Reliabilities of four of the six scales were high; however, two scales were low, so 12 items were added to these subscales. A revised 60-item instrument was created for further testing. Eighty-seven middle schools were selected to demonstrate the stability of the factor structure to confirm the validity and stability of the subtests. The reliability coefficients for all six subtests are high, ranging from .87 to .96. The stability of the factor structure provides construct-related evidence for the six dimensions of climate. Factor analysis enables the researcher to study the constitutive meanings of constructs. The relations among the items measuring each climate dimension were systematically related to each other as expected in the factor analysis. The strong loadings in the predicted six-factor solution, as well as the

high reliabilities of the subtests, suggests that the OCDQ-RM is a useful instrument with extremely high reliability (Hoy et al., 1996).

The final version of the OCDQ-RM contains 50 items in which teachers are asked to indicate the extent to which each statement characterized their interactions with each other and their principal along a 4-point scale from rarely occurs to very frequently occurs. These perceptions are based on the activities, sentiments, and interactions of the organizational members. The OCDQ-RM describes teacher's behavior and principal's behavior in middle school along six factors. It measures three aspects of teacher behavior: (a) collegial, (b) committed, and (c) disengaged. In addition, it measures three aspects of principal behavior: (a) supportive, (b) directive, and (c) restrictive. These six aspects of interactions define two openness dimensions of middle school climate that refer to the openness of teacher-teacher relations and the openness of teacher-principal relations. In addition, these two general dimensions of climate openness define four climate types: (a) open, (b) engaged, (c) disengaged, and (d) closed. However, for the purpose of this study, the categorical classifications were not used; only the interval scores on the teacher and principal openness behavior scales were used.

#### *Teacher Openness Behavior*

Open teacher behavior is also expressed in authentic interactions, especially with colleagues and students. Teachers are open and professional in their interactions with each other as well as their students. Teacher behavior is sincere, positive, friendly, and constructive. The openness in teacher behavior is characterized by high collegial behavior, high committed behavior, and low disengaged behavior. *Collegial behavior* supports open and professional interactions among teachers. Teachers like, respect, and help one another

both professionally and personally. *Committed behavior* is directed toward helping students to develop both socially and intellectually. Teachers work extra hard to insure student success in school. *Disengaged behavior* signifies a lack of meaning and focus in professional activities. Teachers are critical and not accepting of their colleagues. Mean scores are calculated for the teacher behavior subscales and then these mean scores can be converted to standardized scores for each teacher behavior subscale. Lastly, these standardized scores are converted to a standardized teacher openness behavior score.

#### *Principal Openness Behavior*

Open principal behavior is reflected in authentic relations with teachers. The principal creates an environment that is supportive; encourages teacher autonomy; and frees teachers from routine, busywork so they can concentrate on teaching. The principal is open and approachable to teachers and genuinely concerned with their social needs as well as the task achievement of the school. In contrast, closed principal behavior is rigid, close, and nonsupportive. The openness in principal behavior is characterized by high supportive behavior, low directive behavior, and low restrictive behavior. *Supportive behavior* is directed toward the social needs and task achievement of the faculty. The principal is helpful, genuinely concerned with teachers, and attempts to motivate by using constructive criticism and by setting an example through hard work. *Directive behavior* is rigid, domineering behavior. The principal maintains close and constant monitoring over virtually all aspects of teacher behavior in school. *Restrictive behavior* hinders rather than facilitates teacher work. The principal burdens teachers with paperwork, committee requirements, and other demands that interfere with their teaching responsibilities. Mean scores are calculated for the principal behavior subscales and then these mean scores can be converted to standardized scores for

each principal behavior subscale. Lastly, these standardized scores are converted to a standardized principal openness behavior score.

#### Data Collection Procedures and Timeline

1. In February, 2007, the researcher sought to operationally define the term *instructional leader*. Forty-seven certified classroom teachers were given a listing of all the functions of an instructional leader as defined by Harris and Muijs (2003). On the *Instructional Leader Functions Survey*, the teachers were asked to read the definition of an instructional leader, think about the person in their schools who fit the definition, and identify the five functions most commonly performed by this person (see Appendix A). Responses were tabulated to determine the most frequently mentioned functions of the instructional leader as perceived by the teachers. Those five functions were used to operationally define instructional leader.
2. During the summer and fall of 2007, the researcher contacted all middle schools in Connecticut to describe the study. If the principal agreed to his or her participation, a letter informing district level personnel of each principal and school's participation in the research study was sent (see Appendix B). Each principal participating in the study identified all instructional leaders within his or her school, and then the instructional leader was selected based on consent.
3. After permission was granted by the principals, principals either elected to invite the researcher to a scheduled faculty meeting to distribute and administer the instruments or to distribute the surveys in teachers' mailboxes. Data were only collected from participants from whom informed consent had been obtained.

4. During the fall and winter of 2007, each principal agreeing to participate in the study received a packet that consisted of the following: (a) a cover letter describing the study and delineating the directions (see Appendix C); (b) a consent form (see Appendix D); (c) a demographics checklist in which he or she indicated gender, level of education, years of teaching experience, total administrative experience, and administrative experience in the district (see Appendix E); and (d) the MLQ-5X self-rater form to assess their perceptions of their personal leadership styles.
5. During the fall and winter of 2007, each instructional leader agreeing to participate in the study received a packet that consisted of the following: (a) a cover letter describing the study and delineating the directions (see Appendix C); (b) a consent form (see Appendix D); (c) a demographics checklist in which he or she indicated gender, level of education, total teaching experience, teaching experience in the district, and total instructional leadership experience (see Appendix F); and (d) the MLQ-5X self-rater form to assess their perceptions of their personal leadership styles.
6. During the fall and winter of 2007, all teachers agreeing to participate in the study received a packet that consisted of the following: (a) a cover letter describing the study and delineating the directions (see Appendix C); (b) a consent form (see Appendix G); (c) a demographics checklist in which they indicated gender, level of education, years of experience in the profession, years of experience in the district, and frequency of interaction with the instructional leader (see Appendix H); (d) two MLQ-5X rater forms, one to assess their perceptions of the leadership

styles of the principal and one to assess their perceptions of the leadership styles of the instructional leader; and (e) the OCDQ-RM to assess their perceptions of the teacher and principal behavior variables of school climate.

7. During the winter of 2007, the researcher utilized descriptive and inferential statistics to address the five research questions. Data collected on teachers' perceptions were analyzed using the *Statistical Package for Social Sciences* (SPSS).

## Data Analyses

### *Question One*

First, descriptive statistics in regard to teachers' perception of the leadership style (transformation, transactional, and passive) for school leaders (principal and instructional leader), such as the group mean and standard deviation were computed. Three paired-samples *t* tests were performed to determine the mean differences in leadership styles between middle school principals and instructional leaders as perceived by the teachers. It was necessary to perform three *t* tests because there were three components to the leadership style variable (transformational, transactional, and passive). Teachers were the unit of measurement for this analysis. The independent variable was the school leader with two groups or levels, principal and instructional leader. The dependent variable was leadership style, operationally defined as the rating scores on the MLQ-5X. The .0167 alpha level was used to determine if any of the differences between the two group means for each type of leadership style (transformational, transactional, and passive) were significant.

### *Questions Two and Three*

Stepwise multiple regression was used to determine the extent to which teachers' perceptions of the leadership styles of principals and instructional leaders predicted their perceptions of the teacher and principal openness behavior variables of school climate. This type of statistic permitted the measurement of several variables and their interrelationships simultaneously (Issac & Michael, 1995). The stepwise method was used to identify and measure the degree to which specific predictor variables were significant. The stepwise approach allowed for those variables with F values ( $p > .05$ ) to be excluded from the model, therefore, resulting in a more conservative R value. For question two, the predictor variables were teachers' perceptions of the leadership styles of the principal and the instructional leader, operationally defined as the mean rating score on the MLQ-5X, and the criterion variable was the teacher behavior variable of school climate, operationally defined as the teacher openness behavior rating score on the OCDQ-RM. For question three, the predictor variables were teachers' perceptions of the leadership styles of the principal and the instructional leader, operationally defined as the mean rating score on the MLQ-5X, and the criterion variable was the principal behavior variable of school climate, operationally defined as the principal openness behavior rating score on the OCDQ-RM. The .05 alpha level was used to determine if any of the perceived leadership styles of the principal and instructional leader significantly predicted teachers' perceptions of the teacher and principal behavior variables of school climate.

### *Questions Four and Five*

Inferential statistics were used to answer questions four and five, to determine if the type of agreement between teachers' perceptions and the leader's self-perceptions of



transformational leadership style affected the teacher and principal behavior variables of school climate. To address question four, scores were collected from the self-rater and teacher-rater forms of the MLQ-5X for the principal and then categorized into four types of agreement groups: high-high, high-low, low-high, and low-low. High transformational leadership style was defined as scores at the 50th percentile or above and low transformational leadership style was defined as scores falling below the 50th percentile based on the normed data from the MLQ-5X. The type of agreement was the independent variable with four levels or groups. Teachers' perceptions of teacher behavior ratings and principal behavior ratings were collected from the OCDQ-RM. These two dependent variables were compared across the four groups. The unit of measurement was the individual teachers, and a multivariate analysis of covariance (MANCOVA) was performed to determine whether the group means differed on the teacher and principal openness behavior variables of school climate. In addition, participant demographics were used as covariates. The .025 alpha level was used to determine whether agreement group differences significantly affected each dependent measure. This procedure was repeated using the data obtained for instructional leaders to address question five.

The relationships among the research questions, measurement instruments, and research analyses are illustrated in the table below.

Table 2

*Relationship among Variables and Statistics*

Question Number	Design	Independent Variable(s)	Dependent Variable(s)	Instrumentation	Statistics
1	Causal comparative	Leader (principal and instructional leader)	Leadership style (transformational, transactional, and passive)	MLQ-5X	Paired samples <i>t</i> tests
2	Correlational	Leadership style (transformational, transactional, and passive) of principal and instructional leader	Teacher openness behavior of school climate	MLQ-5X and OCDQ-RM	Multiple regression
3	Correlational	Leadership styles (transformational, transactional, and passive) of principal and instructional leader	Principal openness behavior variable of school climate	MLQ-5X and OCDQ-RM	Multiple regression

Table 2 (continued).

Question Number	Design	Independent Variable(s)	Dependent Variable(s)	Instrumentation	Statistics
4	Causal comparative	Type of agreement for principal (high-high, high-low, low-high, and low-low)	Teacher and principal openness behavior variables of school climate	MLQ-5X and OCDQ-RM	MANCOVA
5	Causal comparative	Type of agreement for instructional leader (high-high, high-low, low-high, and low-low)	Teacher and principal openness behavior variables of school climate	MLQ-5X and OCDQ-RM	MANCOVA

## Ethical Consideration

### *Statement of Ethics and Confidentiality*

The researcher met the requirements for conducting research using human subjects and obtained permission from the Internal Review Board at Western Connecticut State University to perform this research. Permission to participate in this research was sought from the principals, instructional leaders, and teachers in addition to district personnel. To assure confidentiality, each school was assigned a confidential identification code and each participant was assigned a confidential identification number. All data were stored in a locked filing cabinet in the researcher's home and were maintained there until the findings were published. Data were accessible only to other researchers for whom the data proved useful in further comparative analyses and who were enrolled in Western Connecticut State University's Doctor of Education in Instructional Leadership Program.

## Chapter Summary

This study utilized a causal-comparative and correlational research design to answer the research questions. This chapter described the subjects, sample, and sampling procedures and delineated the data collection procedures and analytical processes used to determine the difference between the leadership styles of principals and instructional leaders and their relationship to behaviors variables of school climate. The next chapter presents the findings of the research study.

## CHAPTER 4:

### ANALYSIS OF THE DATA AND FINDINGS

This chapter contains the results of the study. As detailed in Chapter 3, this study surveyed teachers to understand how their perceptions of the leadership styles of principals and instructional leaders differed and to determine whether these perceptions predicted their perception of the teacher and principal behavior variables of school climate. In addition, principals and instructional leaders were surveyed to determine how the type of agreement between their self-perceptions of their leadership styles and teachers' perceptions of their leadership styles affected the teacher and principal behavior variables of school climate. The analysis considers the following five questions and hypotheses:

1. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders differ?

H<sub>1</sub>. Teachers' perceptions of leadership styles (transformational, transactional, and passive) differ between principals and instructional leaders.

2. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the teacher behavior variable of school climate?

H<sub>2</sub>. Teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the teacher behavior variable of school climate.

3. Do teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the principal behavior variable of school climate?

- H<sub>3</sub>. Teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of the principal behavior variable of school climate.
4. Does the type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and principals' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate?
- H<sub>4</sub>. The type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and principals' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate.
5. Does the type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and instructional leaders' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate?
- H<sub>5</sub>. The type of agreement (high-high, high-low, low-high, and low-low) between teachers' perceptions and instructional leaders' perceptions of transformational leadership style affect teachers' perceptions of teacher and principal behavior variables of school climate.

### Results for Research Question One

#### *Research Question One Results*

Three paired-samples *t* tests were conducted to evaluate whether there were significant differences in teachers' perceptions of the three leadership styles

(transformational, transactional, and passive) of principals and instructional leaders. Teachers were the unit of analysis for the question. The independent variable was type of school leader (principal or instructional leader). The dependent variable was leadership style (transformational, transactional, or passive). Interval level data, teachers' perceptions of each leadership style for the school leaders, were collected using the *Multifactor Leadership Questionnaire 5X* (MLQ-5X). Teachers completed two forms of the MLQ-5X: one for the principal and one for the instructional leader.

First, descriptive statistics for paired samples were calculated to identify the mean, standard deviation, and standard error of the mean for each leadership style. Results of this analysis are summarized in Table 3. Next, to determine whether the distribution of scores for the leadership style variables deviated from the normal distribution, skewness and kurtosis values were examined. According to Huck (2008), a skewness and kurtosis statistic falling within the range of -1 to +1 indicates a reasonably normal distribution of scores. As can be seen in Table 3, these values indicated a relatively normal distribution of leadership style scores for principals and instructional leaders as perceived by the sample of teachers.

Table 3

<i>Paired Samples Descriptive Statistics for Principals and Instructional Leaders</i>							
		N	Mean	Std. Deviation	Std. Error Mean	Skewness Statistic	Kurtosis Statistic
Pair 1	Principal	114	2.62	.77	.07	-.15	-.91
	Transformational Leadership						
	Instructional Leader	114	3.08	.57	.05	-.86	.50
	Transformational Leadership						
Pair 2	Principal	114	2.19	.67	.06	.14	-.64
	Transactional Leadership						
	Instructional Leader	114	2.01	.61	.06	.01	.20
	Transactional Leadership						
Pair 3	Principal Passive Leadership	114	.96	.71	.07	.72	-.32
	Instructional Leader Passive Leadership	114	.57	.57	.05	1.00	.33



Finally, the three paired-samples  $t$  tests were conducted to evaluate whether there were significant differences in teachers' perceptions between principals and instructional leaders for each of the three leadership styles (transformational, transactional, and passive). A strict Bonferroni correction was used to control for multiple significance tests and minimize the chance for a type I error (Benjamini & Hochberg, 1995). To test each paired samples  $t$  test at the .0167 level, .05 was divided by the number of  $t$  tests. The more stringent .0167 alpha level (.05/3) was used to evaluate each pair. As evidenced in Table 4, results of the analysis indicated that the null hypothesis should be rejected. The results of the first  $t$  test indicated that on the transformational leadership style variable, the mean rating for principals ( $M = 2.62$ ,  $SD = .77$ ) was significantly less,  $t(113) = -6.26$ ,  $p = .000$ , than the mean rating for instructional leaders ( $M = 3.08$ ,  $SD = .57$ ). The 95% confidence interval for the mean difference between the two ratings was -.61 to -.32. The results of the second  $t$  test indicated that on the transactional leadership style variable, the mean rating for principals ( $M = 2.19$ ,  $SD = .67$ ) was significantly greater,  $t(113) = 2.61$ ,  $p = .010$ , than the mean rating for instructional leaders ( $M = 2.01$ ,  $SD = .61$ ). The 95% confidence interval for the mean difference between the two ratings was .04 to .31. Finally, results of the third  $t$  test indicated that on the passive leadership style variable, the mean rating for principals ( $M = .96$ ,  $SD = .71$ ) was significantly greater,  $t(113) = 5.05$ ,  $p = .000$ , than the mean rating for instructional leaders ( $M = .57$ ,  $SD = .57$ ). The 95% confidence interval for the mean difference between the two ratings was .24 to .55.

Table 4

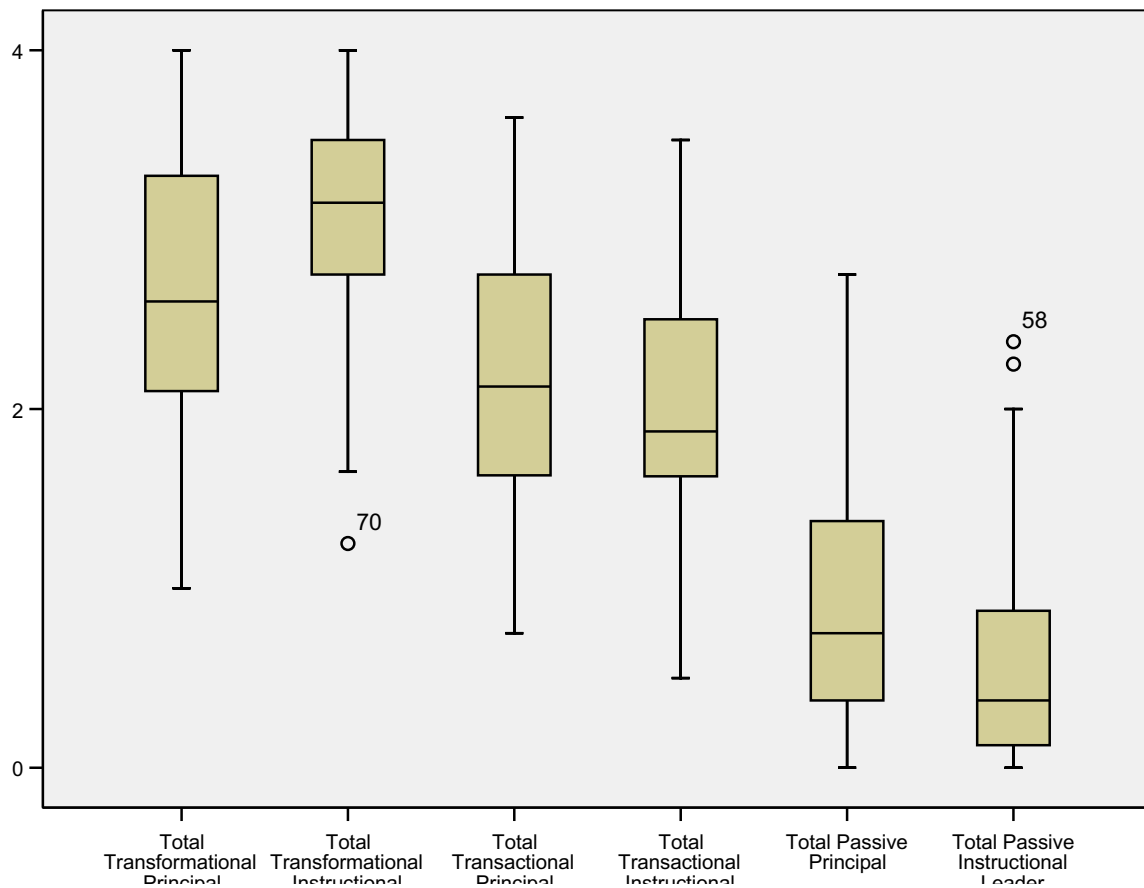
*Paired Sample Test for Principals and Instructional Leaders*

		Paired Differences			95% Confidence		T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	Interval of the Difference				
Pair					Lower	Upper			
1	Principal Transformational Leadership – Instructional Leader Transformational Leadership	-.46	.79	.07	-.61	.32	-6.26	113	.000
2	Principal Transactional Leadership – Instructional Leader Transactional Leadership	.18	.73	.07	.04	.31	2.61	113	.010
3	Principal Passive Leadership – Instructional Leader Passive Leadership	.39	.83	.08	.24	.55	5.05	113	.000

A box plot, illustrated in Figure 1, was created to depict the distribution of means for each leadership style scale (transformational, transactional, and passive) of each school leader (principal and instructional leader).

Figure 1.

*Distribution of Leadership Style (Transformational Transactional, and Passive) Mean Scores by School Leader (Principal and Instructional Leader)*



## Results for Research Questions Two and Three

### *Research Question Two Results*

To determine whether teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predict their perceptions of

the teacher openness behavior variable of school climate, stepwise multiple regression procedures were used. Teachers were the unit of analysis for the question. The predictor variables were teachers' perceptions of the leadership styles of the principal and of the instructional leader (principal transformational leadership, principal transactional leadership, principal passive leadership, instructional leader transformational leadership, instructional leader transactional leadership, and instructional leader passive leadership). The criterion variable was the teacher openness behavior variable of school climate. Teachers' perceptions of the principal and instructional leader's leadership styles were collected using the MLQ-5X. Teachers' perceptions of the teacher openness behavior variable of school climate were measured using the OCDQ-RM. Descriptive statistics for the predictor variables can be found in Table 3.

Using stepwise multiple regression procedures enabled the researcher to investigate which subset of the predictor variables had the strongest relationship to the criterion variable. The predictor variables were entered into the regression equation one at a time and removed according to the following entry and removal criteria: Variables with  $F$  values ( $p > .05$ ) were excluded from the model; only variables with  $F$  values ( $p \leq .05$ ) were included in the final model. Results of this analysis are summarized in Tables 3 and 4. Prior to interpreting the results, multicollinearity, a condition that exists when more than two predictor variables correlate very strongly, had to be examined since the presence of multicollinearity can distort the interpretation of multiple regression results. Tolerance values  $< .01$  and VIF values  $> 10$  indicate problems with multicollinearity (Meyers, Gamst, & Guarino, 2006). As can be seen in Table 6, tolerance and VIF values were  $> .01$  and  $< 10$ , respectively. The regression model indicated  $R = .39$ . This model explained 15% of the variability in teacher openness scores

(adjusted  $R^2 = .14$ ). The analysis of variance results, displayed in Table 5, indicate that this model was significant ( $F = 19.73, p = .000$ ); therefore, the null hypothesis should be rejected. In addition, the unstandardized and standardized coefficients are displayed in Table 6. As evidenced in Table 6, the only significant predictor in the model was principal transformational leadership ( $t = 4.44, p = .000$ ). The other five predictor variables were not significant ( $p > .05$ ). Therefore, teachers' perceptions of the principals' transformational leadership style significantly predicted the teacher openness behavior scores of school climate.

Table 5

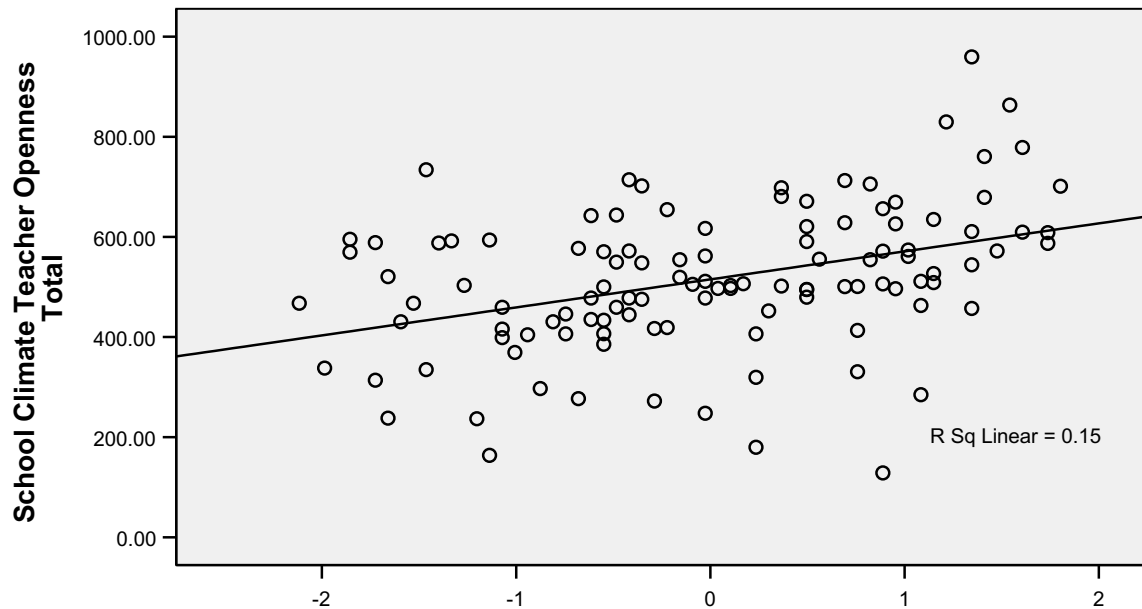
<i>ANOVA</i>						
Model		Sum of	df	Mean	F	Sig.
		Squares		Square		
1	Regression	3.537074	1	353707.35	19.73	.000
	Residual	2007617	112	17925.15		
	Total	2361324	113			

Table 6

*Coefficients*

Model		Unstandardized		Standardized		95% Confidence			
		Coefficients		Coefficients		Interval for B		Collinearity Statistics	
		Std.				Lower	Upper		
		B	Error	Beta	t	Sig.	Bound	Bound	Tolerance VIF
1	(Constant)	323.63	44.90		7.21	.000	234.67	412.60	
	Principal	73.09	16.46	.39	4.44	.000	40.49	405.70	1.00 1.00
	Transformational								

A scatterplot with the line of best fit is displayed in Figure 2 to illustrate the relationship between the variables.



*Figure 2. Scatterplot of Principals' Transformational Leadership Style to School Climate Teacher Openness*

### *Research Question Three Results*

Stepwise multiple regression procedures also were used to investigate the third research question, which involved the relationship among teachers' perceptions of leadership styles of principals and instructional leaders and their perceptions of the principal openness behavior variable of school climate. The predictor variables were again teachers' perceptions of the leadership styles of the principal and of the instructional leader (principal transformational leadership, principal transactional leadership, principal passive leadership, instructional leader transformational leadership, instructional leader transactional leadership, and instructional leader passive leadership). However, in this analysis, the criterion variable was the *principal* openness behavior variable of school climate. These variables were

measured using the MLQ-5X and the OCDQ-RM as described above. The only difference was that the OCDQ-RM was used to collect data on the teachers' perceptions of the principal, not teacher, openness behavior variable of school climate.

In this analysis, the issue of multicollinearity again had to be addressed. Examination of the tolerance and VIF values, reported in Table 8, indicated that there are no multicollinearity problems (Meyers, Gamst, & Guarino, 2006). Therefore, the stepwise multiple regression analysis proceeded, with each predictor variable again being entered one at a time using the same entry and removal statistical criteria that were used in the analysis for question two. Model one, which only included the predictor variable of principal transformational leadership, indicated  $R = .52$ , explaining 27% of the variability in principal openness behavior scores of school climate (adjusted  $R^2 = .27$ ). Model two added the predictor variable of principal transactional leadership to model one, which indicated  $R = .57$ , explaining 33% of the variability in principal openness behavior scores of school climate (adjusted  $R^2 = .32$ ). Model three, including the entry of instructional leader passive leadership, indicated  $R = .60$ , explaining 36% of the variability in principal openness behavior scores of school climate (adjusted  $R^2 = .34$ ). Model four added the variable of the instructional leader transformational leadership. The final regression model indicated that  $R = .62$ . This explained 38% of the variability in school climate principal openness scores (adjusted  $R^2 = .36$ ).

The analysis of variance results for each model are displayed on Table 7. The final model was highly significant ( $F = 16.60, p = .000$ ); therefore, the null hypothesis should be rejected. In addition, the unstandardized and standardized coefficients for all of the models are displayed in Table 8. As evidenced in Table 8, the significant predictors in the final



model were principal transformational leadership ( $t = 7.32, p = .000$ ), principal transactional leadership ( $t = -2.65, p = .009$ ), instructional leader passive leadership ( $t = -2.84, p = .005$ ), and instructional leader transformational leadership ( $t = -2.04, p = .044$ ). The other two predictor variables were not significant ( $p > .05$ ). Thus, teachers' perceptions of the principals' transformational leadership style, of principals' transactional leadership, of instructional leaders' passive leadership, and of instructional leaders' transformational leadership were the best predictors of the principal openness behavior aspect of school climate. It is important to note that teachers' perceptions of the principals' transformational leadership style is positively correlated with their perceptions of the principal openness behavior, whereas teachers' perceptions of the principals' transactional leadership, instructional leaders' passive leadership, and instructional leaders' transformational leadership are negatively correlated with their perceptions of the principal openness behavior.

Table 7

*ANOVA*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	367056.7	1	367056.69	41.78	.000
	Residual	984041.0	112	8786.08		
	Total	1351098	113			
2	Regression	445438.1	2	222719.05	27.30	.000
	Residual	905659.6	111	8159.10		
	Total	1351098	113			
3	Regression	479547.6	3	159849.19	20.18	.000
	Residual	871550.1	110	7923.18		
	Total	1351098	113			
4	Regression	511543.4	4	127885.86	16.60	.000
	Residual	839554.2	109	7702.33		
	Total	1351098	113			

Table 8

*Coefficients*

Model		Unstandardized		Standardized		95% Confidence			
		Coefficients		Coefficients		Interval for B		Collinearity Statistics	
		Std.				Lower	Upper		
		B	Error	Beta	t	Sig.	Bound	Bound	Tolerance VIF
1	(Constant)	273.35	31.44		8.70	.000	211.07	335.64	
	Principal	74.46	11.52	.52	6.46	.000	51.64	97.29	1.00 1.00
	Transformational								
2	(Constant)	317.13	33.42		9.49	.000	250.90	383.36	
	Principal	96.68	13.22	.68	7.32	.000	70.50	122.87	.71 1.42
	Transformational								
	Principal	-46.63	15.04	-.29	-3.10	.002	-76.44	-16.82	.71 1.42
	Transactional								

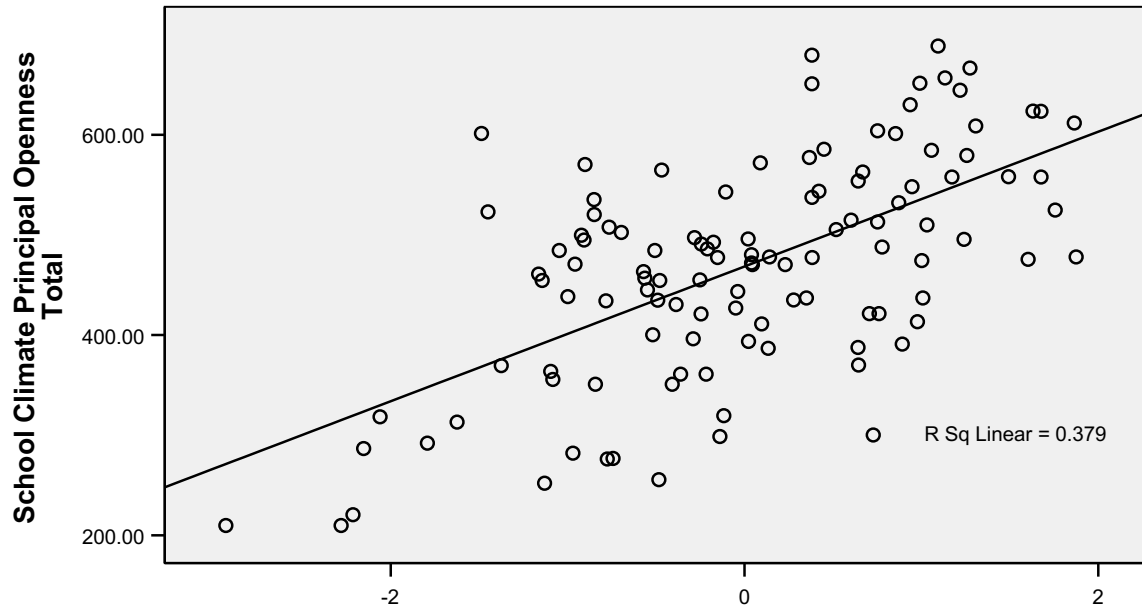
Table 8 (continued).

Model		Unstandardized		Standardized		95% Confidence			
		Coefficients		Coefficients		Interval for B		Collinearity Statistics	
		Std.				Lower	Upper		
		B	Error	Beta	t	Sig.	Bound	Bound	Tolerance VIF
3	(Constant)	339.41	34.64		9.80	.000	270.76	408.07	
	Principal	91.89	13.23	.64	6.95	.000	65.68	118.10	.68 1.46
	Transformational	-43.00							
	Principal		14.93	-.26	-2.88	.005	-72.58	-13.42	.70 1.44
	Transactional	-31.01							
	Instructional		14.95	-.16	-2.08	.040	-60.63	-1.40	.97 1.03
	Leader Passive								

Table 8 (continued).

Model		Unstandardized		Standardized		95% Confidence			
		Coefficients		Coefficients		Interval for B		Collinearity Statistics	
		Std.				Lower	Upper		
		B	Error	Beta	t	Sig.	Bound	Bound	Tolerance VIF
4	(Constant)	438.77	59.53		7.37	.000	320.79	556.74	
	Principal	97.45	13.32	.68	7.32	.000	71.05	123.86	.66 1.53
	Transformational								
	Principal	-39.32	14.82	-.24	-2.65	.009	-68.71	-9.93	.69 1.46
	Transactional								
	Instructional	-48.51	17.05	-.25	-2.84	.005	-82.31	-14.71	.72 1.38
	Leader Passive								
	Instructional	-36.37	17.84	-.19	-2.04	.044	-71.73	-1.00	.66 1.51
	Leader								
	Transformational								

A scatterplot with the line of best fit is displayed in Figure 3 to illustrate the relationship between the variables for Model 4.



*Figure 3.* Scatterplot of Principal Transformational Leadership, Principal Transactional Leadership, Instructional Leader Passive Leadership, and Instructional Leader Transformational Leadership to School Climate Principal Openness

## Results for Research Questions Four and Five

### *Research Question Four Results*

The fourth research question dealt with how the type of agreement between the principals' self-perceptions of the transformational leadership style and the teachers' perceptions of the principals' transformational leadership style affected teachers' perceptions of the teacher and principal openness behavior variables of school climate. The transformational leadership style was chosen as the focus for this part of the study because of the strong relationship described in the literature between transformational leadership and school climate. The scores that had been collected from the self-rater and teacher-rater forms of the MLQ-5X for the principal were categorized into four types of agreement groups: high-high, high-low, low-high, and low-low. High transformational leadership style was defined as scores at the 50th percentile or above, and low transformational leadership style was defined as scores falling below the 50th percentile based on the normed data from the MLQ-5X. The interval level data, teachers' perceptions of teacher behavior ratings and principal behavior ratings, were collected from the OCDQ-RM. These two dependent variables were compared across three of the four groups (high-high, high-low, and low-low), due to the fact that no participations fell into one of the categories (low-high).

Means and standard deviations for the teacher and principal openness behavior variables of school climate across the three types of agreement groups (high-high, high-low, and low-low) are summarized in Table 9. Skewness and kurtosis values were calculated to evaluate the distribution of scores for the teacher and principal openness behavior variables of school climate. A skewness value of  $-.06$  and a kurtosis value of  $.66$  indicated a relatively normal distribution of teacher openness behavior scores of school climate, and a skewness

value of -.30 and a kurtosis value of -.28 indicated a relatively normal distribution of principal openness behavior scores of school climate (Huck, 2008). In addition, the skewness and kurtosis values of the teacher and principal openness behavior scores across each level of the independent variable were calculated to determine if they deviated from the normal distribution. The majority of the skewness and kurtosis values fell within the range of -1.0 and +1.0. Two exceptions were the kurtosis statistic for the teacher openness scores across the high-high group (1.94) and the skewness statistic for the principal openness scores across the low-low group (-1.16). Table 9 summarizes the distribution of teacher and principal openness behavior scores for each type of agreement group (high-high, high-low, and low-low).

Table 9

*Descriptive Statistics for Teacher and Principal Openness Scores of School Climate by Type of Agreement for Principals*

Type of					
Agreement		Std.		Skewness	Kurtosis
Group	Mean	Deviation	N	Statistic	Statistic
Teacher Openness Behavior					
low-low	372.24	130.15	10	.16	-.79
high-low	484.06	117.74	57	-.26	.19
high-high	583.26	144.10	47	-.24	1.94
total	515.15	144.56	114		



Table 9 (continued).

Type of					
Agreement		Std.		Skewness	Kurtosis
Group	Mean	Deviation	N	Statistic	Statistic
Principal Openness Behavior					
low-low	409.38	77.72	10	-1.16	.29
high-low	424.71	102.00	57	-.37	-.57
high-high	534.07	89.48	47	-.18	-.76
total	468.45	109.35	114		

A Multivariate Analysis of Covariance (MANCOVA) was conducted to assess the effects of one independent variable (type of agreement group) with three levels (high-high, high-low, and low-low) on the two dependent variables, the teacher openness behavior scores and the principal openness behavior scores of school climate. The use of a MANCOVA allowed the researcher to conduct a simultaneous analysis of multiple dependent variables that (a) provided some control over the overall alpha level or Type I error rate, (b) considered dependent variable intercorrelation, (c) examined the relationships between dependent variables at each level of the independent variable, (d) identified the dependent variables that produced the most group separation, and (e) revealed group differences that could have been masked by univariate statistical analysis (Meyers, Gamst, & Guarino, 2006). According to Meyers et al., a multivariate analysis is most appropriate when the dependent variables are moderately correlated. In this case, the two dependent variables, the teacher openness behavior scores and the principal openness behavior scores, are moderately correlated ( $r = .30, p \leq .05$ ). In addition, covariates (gender, level of education, years of teaching experience,

years of teaching experience in the district, and interaction frequency with the instructional leader) were examined to determine if they were significantly correlated to the dependent variables. As evidenced in Table 10, none of the covariates were significantly correlated to the dependent measures, the teacher and principal openness behavior variables of school climate ( $p > .05$ ), although district teaching experience approached significance with principal openness behavior ( $r = -.18, p = .06$ ). Despite these findings, all covariates were used to attain a more parsimonious model and to make certain that the full effect was revealed.

Table 10

*Correlations of Covariates to School Climate Variables*

		School Climate: Teacher Openness Behavior	School Climate: Principal Openness Behavior
Gender	Pearson Correlation	-.05	.13
	Sig. (2-tailed)	.58	.16
	N	114	114
Level of Education	Pearson Correlation	.01	.14
	Sig. (2-tailed)	.88	.15
	N	114	114
Teaching Experience	Pearson Correlation	-.02	.14
	Sig. (2-tailed)	.80	.15
	N	114	114
District Teaching Experience	Pearson Correlation	.02	-.18
	Sig. (2-tailed)	.81	.06
	N	114	114
Interaction Frequency	Pearson Correlation	.08	-.09
	Sig. (2-tailed)	.39	.36
	N	114	114

The use of more than one quantitative dependent variable required an examination of the two-group Box's Test of Equality of Covariance Matrices to test homoscedasticity.

The multivariate test for homogeneity of dispersion matrices, Box's Test, tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups. The test for homogeneity of dispersion matrices was significant,  $F(6, 4614.30) = 2.78, p = .011$ ; therefore, the homogeneity hypothesis was rejected, and it was concluded that there are differences in matrices. However, results of the Box's Test should be interpreted cautiously in that a significant result may be due to unequal sample sizes. In addition, the F test is quite robust even when there are departures from this assumption of homogeneity of variance-covariance matrices. For these reasons, using Pillai's trace is considered more robust, and it is more commonly used when sample sizes are unequal to assess the multivariate effects (Meyers et al., 2006).

Therefore, an evaluation of the group differences in the population on the dependent variables was determined using Pillai's trace. As evidenced in Table 11, the dependent variate was significantly affected by the type of agreement, Pillai's trace = .35,  $F(4, 212) = 11.18, p = .000$ , partial  $\eta^2 = .17$ . The multivariate  $\eta^2$  indicates that 17% of the multivariate variance of the dependent variables is associated with the group factor. Therefore, the null hypothesis should be rejected, indicating that in fact group differences on the dependent variate exist. However, as displayed on Table 11, none of the covariates (gender, level of education, years of teaching experience, years of teaching experience in the district, and interaction frequency with the instructional leader) had a significant effect on the dependent variate ( $p > .05$ ), although level of education approached significance ( $p = .08$ ).

Table 11

<i>Multivariate Tests Effects on School Climate</i>							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.44	40.63	2.00	105.00	.000	.44
	Wilks's Lambada	.56	40.63	2.00	105.00	.000	.44
	Hotelling's Trace	.77	40.63	2.00	105.00	.000	.44
	Roy's Largest Root	.77	40.63	2.00	105.00	.000	.44
Gender	Pillai's Trace	.02	.99	2.00	105.00	.38	.02
	Wilks's Lambada	.98	.99	2.00	105.00	.38	.02
	Hotelling's Trace	.02	.99	2.00	105.00	.38	.02
	Roy's Largest Root	.02	.99	2.00	105.00	.38	.02
Level of Education	Pillai's Trace	.05	2.54	2.00	105.00	.08	.05
	Wilks's Lambada	.95	2.54	2.00	105.00	.08	.05
	Hotelling's Trace	.05	2.54	2.00	105.00	.08	.05
	Roy's Largest Root	.05	2.54	2.00	105.00	.08	.05
Teaching Experience	Pillai's Trace	.01	.28	2.00	105.00	.76	.01
	Wilks's Lambada	1.00	.28	2.00	105.00	.76	.01
	Hotelling's Trace	.01	.28	2.00	105.00	.76	.01
	Roy's Largest Root	.01	.28	2.00	105.00	.76	.01

Table 11 (continued).

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
District	Pillai's Trace	.01	.49	2.00	105.00	.62	.01
Teaching	Wilks's Lambada	.99	.49	2.00	105.00	.62	.01
Experience	Hotelling's Trace	.01	.49	2.00	105.00	.62	.01
	Roy's Largest Root	.01	.49	2.00	105.00	.62	.01
Interaction	Pillai's Trace	.04	2.13	2.00	105.00	.13	.04
Frequency	Wilks's Lambada	.96	2.13	2.00	105.00	.13	.04
	Hotelling's Trace	.04	2.13	2.00	105.00	.13	.04
	Roy's Largest Root	.04	2.13	2.00	105.00	.13	.04
Type of	Pillai's Trace	.35	11.18	4.00	212.00	.000	.17
Agreement	Wilks's Lambada	.66	12.15	4.00	210.00	.000	.19
	Hotelling's Trace	.50	13.11	4.00	208.00	.000	.20
	Roy's Largest Root	.48	25.40	2.00	106.00	.000	.32

Because this multivariate test is statistically significant, one can proceed with an assessment of each dependent measure. Table 12 illustrates the Levene's Test of Equality of Error Variances, which tests for homogeneity of variance violations for each dependent variable. The evaluation of each dependent variable was not statistically significant ( $p > .05$ ), indicating equal error variance for each dependent variable across each group.

Table 12

<i>Levene's Test of Equality of Error Variances</i>				
	F	df1	df2	Sig.
School Climate: Teacher Openness Behavior	.60	2	111	.55
School Climate: Principal Openness Behavior	.85	2	111	.43

Each dependent variable was evaluated separately in the Tests of Between-Subjects Effects (see Table 13). Univariate ANOVAs were conducted on each dependent measure separately to determine the locus of the statistically significant multivariate effect. To control for Type I error across the multiple ANOVAs, a traditional Bonferroni procedure was used to test each ANOVA at the .025 level, .05 was divided by the number of dependent variables (Meyers et al., 2006). The new, more stringent .025 alpha level (.05/2) was used to evaluate each of the dependent measures. As evidenced in Table 13, the type of agreement group significantly affected both dependent measures, teacher openness behavior variable of school climate,  $F(2, 106) = 13.88, p = .000$ , partial  $\eta^2 = .21$  and principal openness behavior variable of school climate,  $F(2, 106) = 16.55, p = .000$ , partial  $\eta^2 = .24$ . Both dependent variables contributed to the significant multivariate effect.

Table 13

*Tests of Between-Subjects Effects on School Climate Variables*

Source	Dependent Variable	Type III	Df	Mean	F	Sig.	Partial Eta
		Sum of		Square			Squared
		Squares					
Corrected Model	School Climate: Teacher Openness Behavior	519394.60a	7	74199.23	4.27	.000	.22
	School Climate: Principal Openness Behavior	439082.99b	7	62726.14	7.29	.000	.33
Intercept	School Climate: Teacher Openness Behavior	555775.68	1	555775.68	31.98	.000	.23
	School Climate: Principal Openness Behavior	532109.71	1	532109.71	61.85	.000	.37
Gender	School Climate: Teacher Openness Behavior	17859.95	1	17859.95	1.03	.31	.01
	School Climate: Principal Openness Behavior	5700.52	1	5700.52	.66	.42	.01



Table 13 (continued).

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Level of Education	School Climate: Teacher Openness Behavior	95.30	1	95.30	.01	.94	.00
	School Climate: Principal Openness Behavior	42586.64	1	42586.64	4.95	.03	.05
Teaching Experience	School Climate: Teacher Openness Behavior	6.54	1	6.54	.00	.99	.00
	School Climate: Principal Openness Behavior	4656.70	1	4656.70	.54	.46	.01
District Teaching Experience	School Climate: Teacher Openness Behavior	5342.07	1	5342.07	.31	.58	.00
	School Climate: Principal Openness Behavior	4554.65	1	4554.65	.53	.47	.01

Table 13 (continued).

Source	Dependent Variable	Type III	Df	Mean	F	Sig.	Partial Eta
		Sum of		Square			Squared
		Squares					
Interaction	School Climate: Teacher Openness	3942.97	1	3942.97	.23	.64	.00
Frequency	Behavior						
	School Climate: Principal Openness	31638.73	1	31638.73	3.68	.06	.03
	Behavior						
Type of	School Climate: Teacher Openness	482432.56	2	241216.28	13.88	.000	.21
Agreement	Behavior						
	School Climate: Principal Openness	284727.00	2	142363.50	16.55	.000	.24
	Behavior						
Error	School Climate: Teacher Openness	1841929.40	106	17376.69			
	Behavior						
	School Climate: Principal Openness	912014.67	106	8603.91			
	Behavior						

Table 13 (continued).

Source	Dependent Variable	Type III	Df	Mean	F	Sig.	Partial Eta
		Sum of		Square			Squared
		Squares					
Total	School Climate: Teacher Openness	32614652.1	114				
	Behavior						
	School Climate: Principal Openness	26368149.7	114				
	Behavior						
Corrected	School Climate: Teacher Openness	2361324.00	113				
Total	Behavior						
	School Climate: Principal Openness	1351097.66	113				
	Behavior						

*Note: a. R Squared = .220 (Adjusted R Squared = .168); b. R Squared = .325 (Adjusted R Squared = .280)*

To determine specifically which groups differed significantly on the teacher openness behavior and principal openness behavior dependent measures, pairwise comparisons were assessed with the Bonferonni test, using the adjusted alpha = .025. To be consistent with this decision to adjust the alpha to the .025 level, the researcher controlled for the probability of committing one or more type I errors across multiple pairwise comparisons for the dependent variables by testing each comparison at the alpha level for the ANOVA divided by the number of comparison groups (Green & Salkind, 2005). Therefore, each pairwise comparison was tested at the .008 alpha level (.025/3). Results indicated that two of the three comparisons for each dependent measure were significant,  $p \leq .008$  (see Table 14). The group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational leadership style was high ( $M = 585.69^a$ ) had significantly higher teacher openness behavior scores than did the group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational style was low ( $M = 483.32^a$ ) and the group in which the principals' self-perception of the transformational leadership style was low and the teachers' perception of the principals' transformational style was low ( $M = 365.06^a$ ). In addition, the group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational leadership style was high ( $M = 529.45^a$ ) had significantly higher principal openness behavior scores than did the group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational style was low ( $M = 428.73^a$ ) and the group in which the principals' self-

perception of the transformational leadership style was low and the teachers' perception of the principals' transformational style was low ( $M = 408.19^a$ ).

Table 14

<i>Pairwise Comparisons of Type of Agreement Group in Principal Transformational Leadership Style on School Climate Variables</i>							
Dependent Variable	(I) Type of Agreement	(J) Type of Agreement	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	97.5% Confidence Interval for Difference <sup>a</sup>	
						Lower Bound	Upper Bound
School Climate: Teacher Openness Behavior	Low – Low	High – Low	-118.27	47.10	.041	-244.91	8.38
		High - High	-220.63	47.87	.000	-349.33	-91.93
	High - Low	Low – Low	118.27	47.10	.041	-8.38	244.91
		High - High	-102.36	26.63	.001	-173.97	-30.76
	High - High	Low – Low	220.63	47.87	.000	91.93	349.33
		High - Low	102.36	26.63	.001	30.76	173.97
School Climate: Principal Openness Behavior	Low – Low	High – Low	-20.54	33.14	1.00	-109.66	68.57
		High - High	-121.26	33.68	.001	-211.82	-30.70
	High - Low	Low – Low	20.54	33.14	1.00	-68.57	109.66
		High - High	-100.72	18.74	.000	-151.11	-50.34

Table 14 (continued).

(I) Type of Agreement	(J) Type of Agreement	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	97.5% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
High - High	Low – Low	121.26	33.68	.001	30.70	211.82
	High – Low	100.72	18.74	.000	50.34	151.11

*Note:* <sup>a</sup> indicates adjustment for multiple comparisons: Bonferroni

### *Research Question Five Results*

The fifth research question dealt with how the type of agreement between the instructional leaders' self-perceptions of the transformational leadership style and the teachers' perceptions of the instructional leaders' transformational leadership style affected teachers' perceptions of the teacher and principal openness behavior variables of school climate. Again, the transformational leadership style was the only style used in the analysis because of the strong relationship found between this type of leadership style and school climate. Analytic procedures used to investigate this question were the same as those used to investigate question four. Scores collected from the self-rater and teacher-rater forms of the MLQ-5X for the instructional leader were categorized into four types of agreement groups: high-high, high-low, low-high, and low-low. High transformational leadership style was defined as scores at the 50th percentile or above and low transformational leadership style was defined as scores falling below the 50th percentile based on the normed data from the MLQ-5X. The interval level data, teachers' perceptions of teacher behavior ratings and principal behavior ratings, were collected from the OCDQ-RM. These two dependent variables were compared across the four groups (high-high, high-low, low-high, and low-low).

Table 15 presents the means and standard deviations for the teacher and principal openness behavior variables of school climate across the four types of agreement groups (high-high, high-low, low-high, and low-low) and the skewness and kurtosis values of the teacher and principal openness behavior scores across each level of the independent variable. As can be seen in Table 15, the skewness and kurtosis values fell within the range of -1.0 and +1.0, indicating a relatively normal distribution of scores (Huck, 2008).



Table 15

*Descriptive Statistics for Teacher and Principal Openness Scores of School Climate by Type of Agreement Group for Instructional Leaders*

Type of Agreement	Mean	Std. Deviation	N	Skewness Statistic	Kurtosis Statistic
Teacher Openness Behavior					
low – low	374.32	178.89	2	N/A	N/A
low - high	549.47	188.39	23	.16	.21
high – low	494.12	140.08	32	-.86	1.02
high – high	518.05	123.84	57	-.05	.07
total	515.15		114		
Principal Openness Behavior					
low – low	485.69	102.43	2	N/A	N/A
low - high	508.02	109.19	23	-.47	-.39
high – low	459.82	109.31	32	-.27	-.78
high – high	456.73	108.65	57	-.30	.28
total	468.45	109.35	114		

Research question five was the same as research question four, except that question five looked at instructional leaders whereas question four looked at principals and all for types of agreement groups were used. Therefore, another Multivariate Analysis of Covariance (MANCOVA) was conducted to analyze the data. Box's Test of Equality of

Covariance Matrices was used to test homoscedasticity. The test for homogeneity of dispersion matrices was significant,  $F(6, 56953.53) = 3.51, p = .002$ ; therefore, the homogeneity hypothesis was rejected, and it was concluded that there are differences in matrices. However, as stated above, results of the Box's Test should be interpreted cautiously in that a significant result may be due to unequal sample sizes. In addition, the F test is quite robust even when there are departures from this assumption of homogeneity of variance-covariance matrices. For these reasons, using Pillai's trace is considered more robust, and it is more commonly used when sample sizes are unequal to assess the multivariate effects (Meyers et al., 2006).

An evaluation of the group differences in the population on the dependent variables was determined using Pillai's trace. As evidenced in Table 16, the dependent variate was not significantly affected by the type of agreement, Pillai's trace = .08,  $F(6, 210) = 1.42, p = .21$ , partial  $\eta^2 = .04$  or any of the covariates ( $p > .05$ ). Therefore, the null hypothesis should be accepted, indicating that the agreement groups are not differently distributed on the dependent measures.

Table 16

*Multivariate Tests Effects on School Climate*

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.35	27.74	2.00	104.00	.000	.35
	Wilks's Lambada	.65	27.74	2.00	104.00	.000	.35
	Hotelling's Trace	.53	27.74	2.00	104.00	.000	.35
	Roy's Largest Root	.53	27.74	2.00	104.00	.000	.35
Gender	Pillai's Trace	.02	1.10	2.00	104.00	.34	.02
	Wilks's Lambada	.98	1.10	2.00	104.00	.34	.02
	Hotelling's Trace	.02	1.10	2.00	104.00	.34	.02
	Roy's Largest Root	.02	1.10	2.00	104.00	.34	.02
Level of Education	Pillai's Trace	.05	2.69	2.00	104.00	.07	.05
	Wilks's Lambada	.95	2.69	2.00	104.00	.07	.05
	Hotelling's Trace	.05	2.69	2.00	104.00	.07	.05
	Roy's Largest Root	.05	2.69	2.00	104.00	.07	.05
Teaching Experience	Pillai's Trace	.03	1.72	2.00	104.00	.18	.03
	Wilks's Lambada	1.00	1.72	2.00	104.00	.18	.03
	Hotelling's Trace	.03	1.72	2.00	104.00	.18	.03
	Roy's Largest Root	.03	1.72	2.00	104.00	.18	.03

Table 16 (continued).

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
District	Pillai's Trace	.02	.79	2.00	104.00	.46	.02
Teaching	Wilks's Lambada	.99	.79	2.00	104.00	.46	.02
Experience	Hotelling's Trace	.02	.79	2.00	104.00	.46	.02
	Roy's Largest Root	.02	.79	2.00	104.00	.46	.02
Interaction	Pillai's Trace	.03	1.80	2.00	104.00	.17	.03
Frequency	Wilks's Lambada	.97	1.80	2.00	104.00	.17	.03
	Hotelling's Trace	.04	1.80	2.00	104.00	.17	.03
	Roy's Largest Root	.04	1.80	2.00	104.00	.17	.03
Type of	Pillai's Trace	.08	1.42	6.00	210.00	.21	.04
Agreement	Wilks's Lambada	.92	1.41	6.00	208.00	.21	.04
	Hotelling's Trace	.08	1.40	6.00	206.00	.22	.04
	Roy's Largest Root	.06	1.94	3.00	105.00	.13	.05

## CHAPTER 5:

### SUMMARY AND CONCLUSIONS

The purpose of the research study was to (a) gain a better understanding of how teachers' perceptions of the leadership styles of middle school principals and instructional leaders differed; (b) identify the extent to which the independent variables, teachers' perceptions of the leadership styles (transformational, transactional, and passive) of school leaders (principal and instructional leader), predicted the teacher and principal behavior variables of school climate; and (c) determine the effects of the type of agreement (high-high, how-low, low-high, and low-low) between the school leaders' (principal and instructional leader) self-perceptions and teachers' perceptions of the school leaders' transformational leadership style on the teacher and principal behavior variables of school climate. Data for this research were collected from principals, instructional leaders, and teachers in Connecticut's DRG B and C middle schools through the use of two instruments, the MLQ-5X and the OCDQ-RM. The MLQ-5X was used to assess the leadership styles of the principals and instructional leaders based on the perceptions of the teachers with whom they work and their own perceptions of their leadership styles. The OCDQ-RM was administered to measure the teacher and principal openness behavior variables of school climate. This chapter provides a review of the findings as they relate to the research questions and hypotheses and as they relate to the literature presented in chapter 2. Next, the limitations and implications of the study are discussed. Finally, the chapter concludes with suggestions for future research.

## Review of the Findings

### *Research Question One*

Three paired-samples *t* tests were conducted to evaluate whether there were significant differences in teachers' perceptions of the three leadership styles (transformational, transactional, and passive) of principals and instructional leaders. The independent variable was the type of school leader (principal or instructional leader), and the dependent variable was leadership style (transformational, transactional, or passive). In each case, results of the analysis lead to the rejection of the null hypothesis. The results of the first *t* test indicated that, on the transformational leadership style variable, the mean rating for principals ( $M = 2.62, SD = .77$ ), was significantly less than the mean rating for instructional leaders ( $M = 3.08, SD = .57$ ),  $t(113) = -6.26, p = .000$ . The results of the second *t* test indicated that, on the transactional leadership style variable, the mean rating for principals ( $M = 2.19, SD = .67$ ) was significantly greater than the mean rating for instructional leaders ( $M = 2.01, SD = .61$ ),  $t(113) = 2.61, p = .010$ . Finally, results of the third *t* test indicated that, on the passive leadership style variable, the mean rating for principals ( $M = .96, SD = .71$ ) was significantly greater than the mean rating for instructional leaders ( $M = .57, SD = .57$ ),  $t(113) = 5.05, p = .000$ .

### *Research Questions Two and Three*

To determine whether teachers' perceptions of leadership styles (transformational, transactional, and passive) of principals and instructional leaders predicted their perceptions of the teacher openness behavior variable (question two) or the principal openness behavior variable (question three) of school climate, stepwise multiple regression procedures were

used. The predictor variables were teachers' perceptions of the leadership styles of the principal and of the instructional leader (principal transformational leadership, principal transactional leadership, principal passive leadership, instructional leader transformational leadership, instructional leader transactional leadership, and instructional leader passive leadership). The criterion variables were the teacher openness behavior variable of school climate for question two and the principal openness behavior variable for question three. All of the predictor variables were entered through the use of stepwise procedures.

Results of the analysis for question two indicated that the regression model was significant ( $F = 19.73, p = .000$ ); therefore, the null hypothesis was rejected. The only significant predictor in the model was the principal transformational leadership ( $t = 4.44, p = .000$ ). The other five predictor variables were not significant ( $p > .05$ ). Therefore, teachers' perceptions of the principals' transformational leadership style significantly predicted the teacher openness behavior scores of school climate. This represented a positive prediction; therefore, when teachers perceived their principals as more transformational, they perceived their interactions with their colleagues as more open.

For question three, four variables (principal transformational leadership, principal transactional leadership, instructional leader passive leadership, and instructional leader transformational leadership) were included in the model for predicting principal openness behavior. The final regression model was highly significant ( $F = 16.60, p = .000$ ); therefore, the null hypothesis was rejected. The significant predictors in the final model were principal transformational leadership ( $t = 7.32, p = .000$ ), principal transactional leadership ( $t = -2.65, p = .009$ ), instructional leader passive leadership ( $t = -2.84, p = .005$ ), and instructional leader transformational leadership ( $t = -2.04, p = .044$ ). The other two predictor variables were not

significant ( $p > .05$ ). Therefore, teachers' perceptions of the principals' transformational leadership style, the principals' transactional leadership, the instructional leaders' passive leadership, and the instructional leaders' transformational leadership significantly predicted the principal openness behavior scores of school climate. While teachers' perceptions of the principals' transformational leadership style positively predicted their perceptions of the principal openness behavior scores, teachers' perceptions of the principals' transactional leadership, instructional leaders' passive leadership, and instructional leaders' transformational leadership negatively predicted their perceptions of the principal openness behavior scores.

#### *Research Questions Four and Five*

MANCOVA was used to determine how the type of agreement between the school leaders' (principal and instructional leader) self-perceptions of the transformational leadership style and the teachers' perceptions of the school leaders' (principal and instructional leader) transformational leadership style affected teachers' perceptions of the teacher and principal behavior variables of school climate. The independent variable was the type of agreement group (high-high, high-low, low-high, and low-low) for the principals (question four) and instructional leaders (question five). The dependent variables for both questions were the teacher and principal openness variables of school climate.

For question four, the teacher and principal openness behavior variables were compared across three of the four groups (high-high, high-low, and low-low) because of the fact that no participations fell into one of the categories (low-high). An evaluation of the group differences in the population on the dependent variables was determined using Pillai's trace, which indicated that the dependent variate was significantly affected by the type of



agreement, Pillai's trace = .35,  $F(4, 212) = 11.18$ ,  $p = .000$ , partial  $\eta^2 = .17$ . Therefore, the null hypothesis was rejected. Univariate ANOVAs were conducted on each dependent measure separately to determine the locus of the statistically significant multivariate effect. A traditional Bonferroni procedure was used to test each ANOVA at the .025 level (.05/2). The type of agreement group significantly affected both dependent measures, teacher openness behavior variable,  $F(2, 106) = 13.88$ ,  $p = .000$ , partial  $\eta^2 = .21$  and principal openness behavior variable,  $F(2, 106) = 16.55$ ,  $p = .000$ , partial  $\eta^2 = .24$ . To determine specifically which groups differed significantly on the teacher openness behavior and principal openness behavior dependent measures, pairwise comparisons were assessed with the Bonferroni test, using the adjusted alpha .025. Each pairwise comparison was tested at the .008 alpha level (.025/3). Results indicated that two of the three comparisons for each dependent measure were significant,  $p \leq .008$ . The group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational leadership style was high ( $M = 585.69^a$ ) had significantly higher teacher openness behavior scores than did the group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational style was low ( $M = 483.32^a$ ) and the group in which the principals' self-perception of the transformational leadership style was low and the teachers' perception of the principals' transformational style was low ( $M = 365.06^a$ ). In addition, the group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational leadership style was high ( $M = 529.45^a$ ) had significantly higher principal openness behavior scores than did the group in which the principals' self-perception of the transformational leadership style was high and

the teachers' perception of the principals' transformational style was low ( $M = 428.73^a$ ) and the group in which the principals' self-perception of the transformational leadership style was low and the teachers' perception of the principals' transformational style was low ( $M = 408.19^a$ ).

Regarding question five, the teacher and principal openness behavior variables were compared across the type of agreement groups for instructional leaders. An evaluation of the group differences in the population on the dependent variables was determined using Pillai's trace. Results indicated that the dependent variate was not significantly affected by the type of agreement, Pillai's trace = .08,  $F(6, 210) = 1.42$ ,  $p = .21$ , partial  $\eta^2 = .04$ . Therefore, the null hypothesis was accepted, indicating that the agreement groups are not differently distributed on the dependent measures.

## Relationship to Review of the Literature

### *Comparison of Leadership Styles of Principals and Instructional Leaders*

Researchers and theorists today have attributed a school's success to a collective approach to leadership, with leadership responsibilities being distributed across the entire school community (Elmore, 2000; Spillane et al., 2004). The domain of curriculum and instruction is no longer in the hands of one or only a few administrators. Expert teachers have been assuming formal leadership roles in these areas; they are known as instructional leaders (Harris, 2003, 2004). These leaders are assigned formal positions in the already highly specialized administrative structure of schools; however, their roles differ from those of school administrators. It has been suggested that a division of leadership responsibilities is needed in which administrators assume primary responsibility for strategic leadership while teachers take on primary responsibility for pedagogical or instructional leadership (Crowther

et al., 2002). However, increasing expectations attached to these new roles can be overwhelming to instructional leaders, their colleagues, and their administrators (Collinson & Sherrill, 1997). These educators are being prepared for formal instructional leadership roles within the school community; however, little is known about how they can effectively lead their colleagues and how their leadership styles differ from those of their administrative counterparts.

There have been few studies that place formal teacher leadership within the framework of current leadership theories (Beachum & Dentith, 2004; Pounder, 2006; Smylie & Denny, 1990). Crowther and Olsen (1997) examined leadership approaches of 13 highly successful teachers and two paraprofessionals working in socioeconomically disadvantaged school communities, 9 of whom were employed in primary schools and 5 in secondary schools. Descriptive data only, collected from focus groups and interviews, were quantified and categorized to generate conceptualizations of their leadership. They demonstrated that teacher leaders were perceived as exhibiting leadership qualities that were broadly transformational in nature. Wetig (2002) supported Crowther and Olsen's findings through a case study approach in which she examined 10 teacher leaders. She investigated how these teacher leaders (a) defined leadership; (b) described the leadership characteristics needed to serve the position; (c) identified necessary professional development opportunities; and (d) classified benefits and challenges of the role. Results of initial and follow-up interviews revealed that teacher leaders assuming leadership roles outside of the classroom identified a common language in describing leadership characteristics and that these teacher leaders were viewed as transformational in nature.

Results of the present study support the findings of Crowther and Olsen (1997) and Wetig (2002) and extend findings beyond teacher leaders to instructional leaders. In addition, by using more rigorous statistical procedures than were used in these studies, the present study strengthens the previous findings that teachers perceive teachers who assume formal leadership functions outside of the classroom as exhibiting transformational qualities.

Although previous researchers discussed the need to empirically test and investigate the differences in the leadership of teacher leaders and administrators, it had not been attempted (Crowther & Olsen, 1997). The present study addressed this gap in the literature by investigating whether differences exist in teachers' perceptions of the leadership styles of principals and instructional leaders. Results of three paired-samples *t* tests indicated that differences do exist between instructional leaders and principals. Furthermore, teachers perceive instructional leaders as exhibiting more transformational behaviors and fewer transactional and passive behaviors than their administrative counterparts. Therefore, school leaders may have different roles to play in the exercise of transformational leadership (Lucas & Valentine, 2002).

### *Leadership Styles of Principals and Instructional Leaders and Their Relationship to School Climate*

Perceptions of leadership style have been directly correlated to perceptions of school climate (Benda & Wright, 2002; Patrick, 1995; Sellars, 1984). Empirical studies have demonstrated that teachers associate a more open school environment with principals who exhibit transformational characteristics: establishing trusting relationships, encouraging participation in the decision-making process, providing individualized consideration, and inspiring others to work toward a common goal or purpose (Blatt, 2002; Chirichello, 1999;

Pepper, 2002). None of the studies cited above examined teacher leaders or instructional leaders; they only considered the principals' styles in relation to school climate. The only study that did attempt to investigate teacher leaders' relationship to school climate was conducted by Lucas and Valentine (2002). However, they focused on teachers' perceptions of the leadership styles of teacher leader teams and principals, instead of instructional leaders as was investigated in the present study. Lucas and Valentine found that teachers perceived teacher leader teams to be important in motivating colleagues through some transformational behaviors: fostering commitment to school goals, providing individualized support and intellectual stimulation to teachers, and holding high expectations for their peers' performance. They suggested that future studies needed to be conducted to determine the specific transformational behaviors teacher leaders should exhibit because principals and teacher leaders may have different roles to play in the leadership structure within a school.

The present study addressed these concerns and gaps in previous studies. Multiple regression allowed for the relationships among the leadership styles (transformational, transactional, and passive) of school leaders (principal and instructional leader) and teacher and principal behavior variables of school climate to be tested empirically. Results supported earlier findings that teacher's perceptions of the transformational leadership of principals correlated positively with aspects of school climate. Teachers who perceived their principals as more transformational perceived their colleagues' behaviors to be open. Teacher openness behaviors are expressed through the following: authentic and professional interactions with each other as well as their students; positive and friendly attitude toward others; and sincere and constructive dialogue. In addition, the present study found that transformational and transactional leadership of principals and the transformational and passive leadership of

instructional leaders significantly predicted teachers' perceptions of principals' behaviors. Teachers who perceived their principals as more transformational and less transactional perceived their principals as more open. Principal openness behaviors are characterized as the following: developing authentic relations with teachers; creating an environment that is supportive; encouraging teacher autonomy; and freeing teachers from routine and busywork so they can concentrate on teaching. Interestingly, teachers who perceived their instructional leaders as more passive and more transformational also perceived their principals as less open. This result was intriguing and may have implications for the relationships among leaders in school and the leadership structure of middle schools. As principals become less open, the passivity of instructional leaders may increase within this type of school climate. Some instructional leaders may also be increasing their transformational behaviors in response to a principal who is less open.

#### *Type of Agreement of Leader Self-Perception and Teacher Perception of Transformational*

#### *Leadership and School Climate*

There is some evidence that teachers may view their principals differently than their principals view themselves. Pashiardis (2001) found some agreement and some disagreement between the teachers' perceptions and the principals' self-perceptions of the principals' leadership style. He predicted that discrepancies in perceptions would have a negative effect on the principal's effectiveness and the school environment; however, empirical testing was not conducted to investigate this claim. Kelley et al. (2005) statistically supported the finding that a discrepancy between the principals' self-ratings and teachers' perceptions of their principals' leadership style exists. However, these discrepancies were not analyzed in relation to the school climate variables.

Chaffee (1981) specifically conducted a study to explore the relationship between school climate and the agreement between principals and teachers' perceptions of the leadership style of principals in elementary schools. Data were analyzed using a chi-square test, and Cramer's statistics were used to measure the magnitude of the relationships found. Findings indicated that principals and teachers did not agree on the principal's leadership style in 56.7% of the schools and that a more open school climate was associated with schools in which there was agreement between the perceptions of the principals and teachers in regard to leadership style. A replication of Chaffee's study was conducted by Stueven (1985) in the same public school system. A chi-square test and simple regression procedures were used to analyze the data. Unlike Chaffee, Stueven found no significant relationship between the discrepancy in perceptions of the leadership styles of the principals and school climate at the school levels. However, when teachers were viewed individually, the agreement that existed between the way they perceived the leadership style of the principal and the principal's self-identified leadership style related positively to the teachers' rating of school climate.

The present study tested the hypothesis that a discrepancy in school leaders' self-perception of leadership style and teachers' perceptions of the school leaders' leadership style would be related to aspects of school climate. The only two studies (Chaffee, 1981; Stueven, 1985) that tested this hypothesis were conducted in the same region of the country, in the same school systems, and at the elementary school level. Both researchers recommended that research should be conducted at other school levels as the present study did. In the present study, the type of agreement was divided into four groups so that the researcher could examine the effect that each type of agreement category had on school

climate. In addition, two aspects of school climate (teacher openness behavior and principal openness behavior) were analyzed to learn more about specific relationships in a school. The results of the MANCOVA indicated that the group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational leadership style was high had significantly higher teacher and principal openness behavior scores than did the group in which the principals' self-perception of the transformational leadership style was high and the teachers' perception of the principals' transformational style was low, and the group in which the principals' self-perception of the transformational leadership style was low and the teachers' perception of the principals' transformational style was low. In this study, the same hypothesis was also tested in regard to instructional leaders. However, results of the MANCOVA indicated that the type of agreement group for instructional leaders did not significantly affect teachers' perceptions of school climate.

#### Limitations of the Study

A major threat to the internal validity of the present study was the possibility of a subject characteristics threat. The researcher was aware that extraneous variables could have explained results that were obtained (Fraenkel & Wallen, 2003). The researcher collected demographic information to help control for some factors such as gender, level of education, years of experience in the profession, years of experience in the district, and teachers' frequency of interaction with the instructional leader. Lack of control over the independent variable was an additional weakness (Fraenkel & Wallen, 2003). Classifying subjects into dichotomous groups such as principal and instructional leader for the purpose of the comparison could have been problematic. To control for variability, an expert panel reviewed



the functions of the instructional leader and the five most frequently seen functions were chosen to operationally define instructional leader. Testing conditions and data collector bias could have posed a threat to internal validity (Fraenkel & Wallen, 2003). The researcher administered the instruments at different times and through different approaches: five schools completed the instruments in faculty or content meetings, and two schools completed the instruments on teachers' own time.

This study was limited to middle schools from DRGs B and C in the state of Connecticut; therefore, results can only be generalized to middle schools in districts whose students' families are similar in education, income, occupation and need, and that have roughly similar enrollment. Randomization was not possible for the groups of principals and instructional leaders because these groups were preexisting (Fraenkel & Wallen, 2003). In addition, participation in the study was completely voluntary; therefore, the researcher had no control over the teachers, principals, and instructional leaders willing to participate. There is a possibility that the teachers, principals, and instructional leaders participating in the study may have had a more positive relationship with each other than those who were unwilling to participate in the study.

### Implications of the Study

Today, principals have increased managerial responsibilities, yet it has been shown that teachers are more satisfied, work harder, and feel more connected to each other and their leaders when a school culture is predominantly transformational in nature (Bredeson, 1985; Chirichello, 1999; Stronge, 1993; Tarter et al., 1995). Results of the present study indicated that teachers view instructional leaders as more transformational in their role than principals, yet they perceived principals' behavior as affecting the school climate more than

instructional leaders. It is interesting that even though teachers view the instructional leaders as possessing the ability to transform an organization, they still view the principal as setting the standards by which the school staff operates. It may be that because the role of the instructional leader is new, the full potential of this role is not yet realized. Regardless, the findings imply that it is important for instructional leaders and principals to work together to establish a school culture that values open interactions among staff and school leaders. Rather than principals coordinating and controlling a school community, it may be important for principals to stimulate change by promoting multiple sources of leadership. Therefore, school leaders, including administrators and instructional leaders, may benefit from leadership training provided by higher education institutions.

Today, the principal remains an important figure in a school community (Hallinger, 2005). Teachers' interactions are influenced by the values and norms established in a school environment. The present study supports previous research (Booker, 2003; Kelley, et. al., 2005; Lucas & Valentine, 2002) findings that the transformational behaviors exhibited by the principal have a positive effect on teachers' interactions. Teachers' interactions with their colleagues are influenced by their perceptions of their principal's transformational behaviors. Therefore, it is important for principals to establish openness among the staff. The present study also revealed that teachers' perceptions of their principals and instructional leaders' leadership styles are related to their perceptions of their interactions with other teachers and the principal. Teachers' perceptions of principals' openness behaviors were negatively related to their perceptions of the passive and transformational qualities of instructional leaders. It could be that when a principal is closed, most instructional leaders become paralyzed, while some attempt to become more transformational, or the converse of this

relationship might be true. Regardless, school leaders need to understand how their behaviors are interrelated with each other and their staff, particularly their instructional leaders.

Therefore, the results imply that the relationships among the principals, instructional leaders, and teachers are interconnected and further investigation is needed in this area to determine causal relationships.

The present study also revealed the need for school leaders to be aware of how their followers view them. Results of the present study demonstrated that when teachers and principals agreed that the principal exhibits transformational leadership, teacher and principal interactions were more genuine and open. When there is a discrepancy in perceptions, specifically when principals view themselves as more transformational than they are actually perceived by the teachers in their schools, the climate is negatively impacted. Therefore, it is important for school leaders to know how they are perceived to more appropriately lead a staff. Administering 360° instruments at faculty meeting could provide valuable information to help principals and other school leaders in the development of more effective leadership plans.

### Suggestions for Future Research

Additional research is needed in the area of teacher and administrative leadership with regard to the leadership structures within schools. Replication of this study is highly recommended to provide more insight and support the findings of this study. Suggestions for replication include the need for (a) increased sample size, (b) random assignment to groups, and (c) random selection of participants. In addition, research in the area of instructional leadership should be investigated at other school levels, including elementary and secondary schools.

The findings of this study indicated that the relationships of school leaders are interconnected with each other and the teachers. Although significant relationships do exist, future studies need to be conducted to determine specifically the casual relationships. The present study found that a negative relationship exists between instructional leaders' use of passive and transformational leadership and principals' openness. One possibility could exist that when principals exhibit closed and rigid behavior, instructional leaders become ineffective and paralyzed or at times, they may attempt to assume more transformational behaviors to fill the void. Therefore, future research is needed to help explain the complex nature of leadership relationships. Qualitative studies, including interviews of instructional leaders, might reveal some important explanations of such complex relationships.

### Conclusion

The recent emergence of formalized leadership roles for teachers engenders greater complexity to the leadership structures of schools. More people are having an influence on others' perceptions of school leadership and the environment. As teachers are assuming greater responsibility for the leadership within their schools, their interactions and relationships with other school leaders and their colleagues are changing. Fostering open and genuine interactions can have positive effects on the climate of schools. It is necessary for instructional leaders to determine their place in the leadership structure of a school and understand how the roles they play affect the climate. Furthermore, school leaders need to develop a better understanding of the leadership structures within their school communities so that they have the potential to be improved. This research suggests that further investigation should be conducted at all school levels.

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## Appendix A: Instructional Leader Functions Survey

## Instructional Leader Functions Survey

**Your position within the school:** \_\_\_\_\_ **School level:** \_\_\_\_\_

For the purpose of the study I am conducting, an ***instructional leader*** is a teacher leader in a formalized position within the school community. The formal leadership roles that the instructional leader undertakes have both management and pedagogical responsibilities. This leader is an important source of instructional expertise. The following positions could be included under this definition: mentor, coach, subject coordinator, curriculum specialist, instructional specialist, or department chair. Please think about the instructional leaders within your school who fit this definition. Label the title of the instructional leader within your school and check the **five** most common functions he or she performs. Thank you for your time.

**Title of instructional leader:** \_\_\_\_\_

### Functions of instructional leader:

<input type="checkbox"/> facilitating study groups	<input type="checkbox"/> creating new approaches
<input type="checkbox"/> coaching teachers	<input type="checkbox"/> mentoring teachers
<input type="checkbox"/> keeping school organized and moving toward its goals	<input type="checkbox"/> leading in-service training and staff development activities
<input type="checkbox"/> undertaking action research	<input type="checkbox"/> providing curriculum resources
<input type="checkbox"/> participating on school improvement teams	<input type="checkbox"/> demonstrating expertise in curricular areas
<input type="checkbox"/> continuing to teach and to improve individual teaching proficiency and skills	<input type="checkbox"/> engaging other teachers in collaborative action planning, reflection, and research
<input type="checkbox"/> setting academic benchmarks for students	<input type="checkbox"/> modeling collegiality
<input type="checkbox"/> continuously improving classroom teaching practices	<input type="checkbox"/> initiating non-evaluative, peer classroom observations
<input type="checkbox"/> providing and shaping curriculum knowledge	<input type="checkbox"/> organizing and leading peer review of teaching practices
<input type="checkbox"/> participating in school level decision making	<input type="checkbox"/> creating support groups for school members
<input type="checkbox"/> encouraging others to take on leadership roles	<input type="checkbox"/> developing collaborative relationships with colleagues



## Appendix B: District Level Personnel Letter

**WESTERN CONNECTICUT STATE UNIVERSITY**

XXXXXXXXXX  
XXXXXXX  
XXXXXXXXXX  
XXXXXXXXXX

Dear \_\_\_\_\_,

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. The purpose of the study is to compare teachers' perceptions of the leadership styles of middle school principals and instructional leaders and to determine how these perceptions relate to their perceptions of school climate.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. Results of this study will enable educators to better understand the leadership structures within school communities so that they may improve them. Participation in this study is completely voluntary. The questionnaires are coded to ensure that all responses will be held in the strictest confidence. A copy of the results will be available upon request.

\_\_\_\_\_ at \_\_\_\_\_ has graciously consented to participate in my research. I wish to thank the Simsbury school district for participating in this study and for contributing to the body of research that helps define the qualities of exceptional school leadership.

Sincerely,

Jessica Devine

## Appendix C: Cover Letter

## WESTERN CONNECTICUT STATE UNIVERSITY

Dear Participant,

This cover letter and the accompanying consent form are intended to encourage participation in my doctoral research study in instructional leadership at Western Connecticut State University. The purpose of the study is to compare teachers' perceptions of the leadership styles of middle school principals and instructional leaders and to determine how these perceptions relate to perceptions of school climate.

Two instruments will be used in this study. The *Multifactor Leadership Questionnaire-5X* (MLQ-5X) will assess teachers' perceptions of the leadership styles of the principal and the instructional leader. Teachers will complete a separate form for the principal, \_\_\_\_\_, and the identified instructional leader, \_\_\_\_\_. The self-rater form of this instrument will be completed by the principal and the instructional leader. In addition, teachers will complete the *Organizational Climate Description Questionnaire-RM* (OCDQ-RM) to assess perceptions of the organizational climate within the school.

Participation in this study is completely voluntary. The questionnaires are coded to ensure that the answers will be held in the strictest confidence. A copy of the results will be available upon request.

I appreciate the willingness to participate in this research study by the administration and staff of \_\_\_\_\_.

Thank you for your cooperation and your contribution to the research study.

Sincerely,

Jessica Devine

## Appendix D: Consent Form (Principal and Instructional Leader)

WESTERN CONNECTICUT STATE UNIVERSITY

Principal and Instructional Leader Consent Form

Dear Principal or Instructional Leader,

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. Please accept this letter as my formal request for you to take part in a research study. This research will take place in the fall of 2007.

The purpose of the study is to compare teachers' perceptions of the leadership styles of middle school principals and instructional leaders and to determine how these perceptions relate to their perceptions of school climate. Currently, there exists a substantial body of literature and numerous empirical studies dealing with principals' leadership styles and their effect on school climate. However, there is limited information on the leadership styles employed by instructional leaders and how they affect school climate.

Two instruments will be used in this study. The *Multifactor Leadership Questionnaire-5X* (MLQ-5X) will assess the leadership styles of the school leaders (principal and instructional leader) based on the perceptions of the teachers with whom you work and your own perception of your leadership styles. You will complete the self-rater form of the MLQ-5X to assess your perception of the leadership styles you exhibit. In addition, the teachers will complete the *Organizational Climate Description Questionnaire-RM* (OCDQ-RM) to assess their perceptions of the organizational climate within your school.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. Results of this study will enable educators to better understand the leadership structures within school communities so that they may improve them.

Participation in this study is completely voluntary. The questionnaires are coded to ensure that your answers will be held in the strictest confidence. A copy of the results will be available upon request.

If you have any questions, or you would like further information about the study, please contact me via email at \_\_\_\_\_.

Thank you for your cooperation and your contribution to the research study.

Sincerely,

Jessica Devine

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\_\_\_\_\_  
Participant Signature

## Appendix E: Demographics Checklist Form (Principal)

## Principal Demographics Checklist

**Directions:** *Please indicate the item that best describes you for each category.*

**Gender:**

- ☐ Male
- ☐ Female

**Level of Education:**

- ☐ Bachelors
- ☐ Masters
- ☐ Sixth Year Professional Certificate
- ☐ Doctorate

**Total Classroom Teaching Experience:**

- ☐ 1-5 years
- ☐ 6-15 years
- ☐ 16+ years

**Total Administrative Experience:**

- ☐ 1-5 years
- ☐ 6-15 years
- ☐ 16+ years

**Administrative Experience in District:**

- ☐ 1-5 years
- ☐ 6-15 years
- ☐ 16+ years

**Thank you for your time!**



## Appendix F: Demographics Checklist Form (Instructional Leader)

## Instructional Leader Demographics Checklist

**Directions:** *Please indicate the item that best describes you for each category.*

**Gender:**

- ☐ Male
- ☐ Female

**Level of Education:**

- ☐ Bachelors
- ☐ Masters
- ☐ Sixth Year Professional Certificate
- ☐ Doctorate

**Total Teaching Experience:**

- ☐ 1-5 years
- ☐ 6-15 years
- ☐ 16+ years

**Teaching Experience in District:**

- ☐ 1-5 years
- ☐ 6-15 years
- ☐ 16+ years

**Total Instructional Leadership Experience:**

- ☐ 1-5 years
- ☐ 6-15 years
- ☐ 16+ years

**Thank you for your time!**

## Appendix G: Consent Form (Teacher)

## WESTERN CONNECTICUT STATE UNIVERSITY

### Teacher Consent Form

Dear Teacher,

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. Please accept this letter as my formal request for you to take part in a research study. This research will take place in the fall of 2007.

The purpose of the study is to compare teachers' perceptions of the leadership styles of middle school principals and instructional leaders and to determine how these perceptions relate to their perceptions of school climate. Currently, there exists a substantial body of literature and numerous empirical studies dealing with principals' leadership styles and their effect on school climate. However, there is limited information on the leadership styles employed by instructional leaders and how they affect school climate.

Two instruments will be used in this study. The *Multifactor Leadership Questionnaire-5X* (MLQ-5X) will assess your perceptions of the leadership styles of the principal and the instructional leader. You will complete a separate form for the principal and the identified instructional leader. The self-rater form of this instrument will be administered to the principal and the instructional leader. In addition, you will complete the *Organizational Climate Description Questionnaire-RM* (OCDQ-RM) to assess your perception of the organizational climate within your school.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. Results of this study will enable educators to better understand the leadership structures within school communities so that they may improve them.

Participation in this study is completely voluntary. The questionnaires are coded to ensure that your answers will be held in the strictest confidence. A copy of the results will be available upon request.

If you have any questions, or you would like further information about the study, please contact me via email at \_\_\_\_\_.

Thank you for your cooperation and your contribution to the research study.

Sincerely,

Jessica Devine

-----

\_\_\_\_\_  
Participant Signature

## Appendix H: Demographics Checklist Form (Teacher)

## Instructional Leader Demographics Checklist

**Directions:** *Please indicate the item that best describes you for each category.*

**Gender:**

- ☐ Male
- ☐ Female

**Level of Education:**

- ☐ Bachelors
- ☐ Masters
- ☐ Sixth Year Professional Certificate
- ☐ Doctorate

**Total Teaching Experience:**

- ☐ 1-5 years
- ☐ 6-15 years
- ☐ 16+ years

**Teaching Experience in District:**

- ☐ 1-5 years
- ☐ 6-15 years
- ☐ 16+ years

**Please indicate how frequently you interact with the identified instructional leader:**

- ☐ Never
- ☐ At least once a year
- ☐ At least once a marking period
- ☐ At least once a month
- ☐ At least once a week

**Thank you for your time!**